

Teacher training decision

Tories discuss limit on liberal arts courses

by Judith Judd

Proposals to limit liberal arts courses a colleges of higher education are being discussed by the Conservutive Porty. At o policy group meeting last week plans to encourage shorter, cocutional courses were put forward.

The talks are toking place in the ight of the Oakes committee eliberations on the management of higher education and it is unlikely that official policy will be deter-atined until the committee hus ande

alined uotil the committee hus ande its recommendations. The Conservatives favour new mational funding to control higher education in the public sector. At lost week's meeting, Dr Keith Hompson, MP for Ripon and vice-chairman of the Conservative porlia-gested that colleges of higher educa-tion should be controlled through a central body. Its job would he to approve courses associated with regional and local requirements with na over-

hail enrolled nearer to 170 students, orany of whom wore paying fees. The university's uction has un-gered Ulster teachers' unions and the other training institutions in the province, which have scruppi-lously kept to their quatas to ovoid training teachers for unemploy-ment.

provokes row in Ulster

whelmingly vocational shart. Dr Hamison said this week: "I have here need to short-turn should have been held to short-cycle two-yeur curses, DipHES of a quest-vucational character." The Conservatives have intacked of higher education have here outcation the way in which the new colleges of higher education have here created without defaulte guide. March by Lord Melchett, the Minis-cial purposes. Conservatives and colleges of higher education for work while some hare a very large proportion. Dr Humpson said that if the Cakes committee work to here when

till now we have assumed that these scholarships are scholarships only and have nulling to do with mun-hers of students. This is not really o new principle at all."

NUS operates with a min failed to represent he and the state any concessions on a "The second reason have not received value NUS subscriptions con this year at Edinberg

Oakes committee to publish report after Christmas

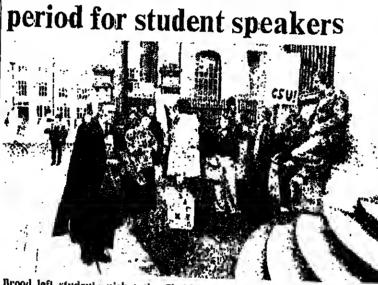
Although no formal vote was taken at lost week's meeting of the committee, it was ogreed in prin-ciple to recommend the creation of a bational body to administer more than 75 per cent of the costs of polytechnics and colleges with large amounts of advanced level work, the too cit. Tuesday, members conditioned notvice tunes and colleges with large a amounts of advanced level work, t Under the scheme, detailon in r Tha THES last week, the remain-ing portion would be paid directly by maintolaing local authorities and the overall costs raised through local government and the rute sup-ular front. uort grent. The committee plans to huvo three full meetings before Christ-

over pay docking threat

The Oakos containtee reviewing mas and is expected to put the finishing towches to a final report shortly afterwords. Mr Gordon Can-mendation and hopes to publish o report soon after Christmas.

a meeting of an Oakes sub-commi-teg on Tugedey members considered in Department of Education and Sci-ence document recommending a revised system based on the exist-lug regional advisory councils but with a anch reduced role, partiru-larly with regard to course appro-vuls.

Briefing, page 9 Leuder, page 14 Liverpool lecturers urge action



Congregation supports trial

Anderstry tops student for the new formula formul

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dents nok part in dents nok part in dents nok part in dents nok part in dents in dents overske factorer of joining resources to the second sec

In the fload count with the students who we fuvour of joining san nore than 1,200 side rather hove no unlast remain in the existing of 786 cust wher first new favour of the weight favour of the national was favour of the national was Mr Keith Lesli, seive, of the university's succ tion, said this week that, been two major resum, unpopularity of the Nation of Studenta: "The first

But his view is not shared by Mr James Punfrot, principal of nearby Strannullis College. He said that my deviation from the guidelines had down by the Department of Ethicotian was contrary to the principal ment, Mr Ilrian Toms, general secretary of the Ulster Tenchers' Union, said : "Of course this is a free country, and naiversities are supposed to be ciple of the apota.

Fee waiver for many foreign students likely by Sue Reill

Scottanil. We can do ben sclees." Miss Sue Slipman, real the NUS, commented: "For course disoppointed. We believe than at this the for to Scottish union of notest right thing for Scolad be point is that we do not wave massive rifts in the store of the of the store of the store of the point is that we do not wave

never see members of a executive, and the test by the NUS is rarely a Scotland. We can de t

Edinburgh

withdraws

from NUS

Edin hurgh University's r deuts are to withday National Union of Suder ing a referendum by cuopus last week. Of deuts hude past week

ference to the NUS.

CUOIDIN

mean." "The Scottish file story we mean." "The Scottish file Sec-collapsed in 1971 heavies chal debt of £19,000 Sech the Scottish insilhies we reversion of Glasgo, an NUS members which is tahued an office in Editory.

Cardiff repo criticized

The university's academic board was to ensure the teach at a miceting yestorday. Its recommendations will be coaldered by Senate on Decoder 13. In its original document-deter thrown but by the cademic board-the working perty urged thet courses abuild be " written in a manuer sensitive to public." "A second draft scrapped this wolding, and substi-uned a reference to the "duty" of all publishing "hterprises to be sware of public opinion. Now the

by Maggie Richords The final report of an Open University working party on ecademic stendords has further softened a cleuse on sensitivity to public onlinion. The working party, sot up following allegations of Marrist bias in some courses, has elso now emphasized the tuportance of the collective role of teams com-pilling them.

piling them. The uolversity's academic board was to discuss the

Industry tops student choice

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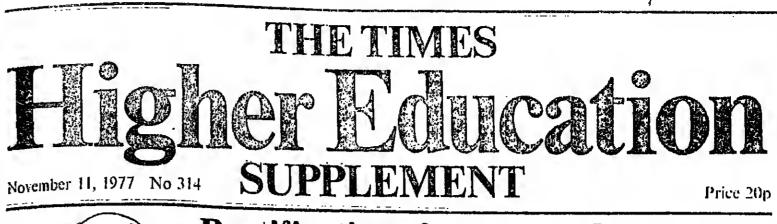
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Industry tops students choice in the constant of the products have definitely rejected by 33 per sent and definitely rejected in 18 British intervention. It knocked on the leed the mych





Rectification of pay anomaly in stages

by Judith Judd

The Government's response to the university teachers' pay claim is expected during the next two weeks and seems likely to include some rectification, in several stages, of their pay enomaly. The lecturers ore new awaiting the decision of the Department of Edocotion and Science after the possage of the claim through the negotiating machinery. The Government's response to the university teachers' pay chim is, expected during the next two weeks, mud seems likely to include some rectification, in several stages, of their pay onomaly. The lecturers or new awaiting the decisiun of the Department of Edocation and Science after the possage of the claim through the negotiating. The present deloy may woll have been raised informatily in the claim through the negotiating been caused by the need for the cobinet's sub-committee un poy to orgete tu the Government's offer. Lecturers are cloiming rises of hetween 12 and 16 per cent from August 1 in setdement at their pay monoly, which arcse in 1975. This claim has already been agreed by Committee A which

represents the AUT and the rectification of anomalies and has University Authorities Panel. The indicated that if the Government scales needed to rectify the anomaly proved beloful, the university tea-

Maurice Bruce reviews José Harris's biography of Lord Beveridge, " the last of the great

Stick to applied

research SRC

tells polys

y Clive Cookson clence correspondence

Edinburgh University An international university only contingently related to the Scottish capital? David Walker contributes the second of our

profiles of the ancient

Scots universities, 9

'all-round' sociat reformers", 18

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Lord Beveridge

Two historians

Joel Hurstfield pays tribute to two historians who have recently died : J E Neale, the Elizabethan specialist, and VH Galbraith, the medievalist.

Research and industry

and industry, central or locul gov-erumant. In addition the committee wants to offer 50 research studentships and 20 advanced course student-ehips o year for vocational post-graduate training. Polytechnics will receive no special help to improve the quelity or quantity of their fundamental scientific research, though they will of course still he free to compete with universities for normal C Polkinghorne defends the industrial relevance of postgraduate research, even in academic science: 15

Biology books

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Maggie Richards reports on a survey of the adult education available in Sheffield, 10

Computers

Two pages on how computers assist learning, 12-13

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Local authorities flex muscles on **Oakes constitution**

by Sue Reill Almost 75 per cent of overseas stu-dents in Brissin will have their fees waived from 1979 if the Govern-ment's new £120m package to nid poorer foreign students is approved by the Cabinet. At ieses 50,000 of the 68,000 foreign students at universities and colleges in the 1979-80 academic tables will gain foe exemption; under the latest proposale now being tablewed by two Cabinet sub-interest fielerstee dovernment of kacation and Sclence and other interestee Government oppartments. The 68,000 totals is the Departments interest ef Government of by the DE'S for firreign tablewed at 3,000.

Projected by the DiXS for inreign student numbers, which now stand
The package minus to introduce a system of positive disculariants in the obsection in the coll-nicht now stand
The package minus to introduce a system of positive disculariants in the expense of the committee by the local to the committee by the local on the committee by the sector of the content the title. The committee by the section and science by the sector of the content the title state the committee last their roprestition and science by the sector of the content the sector of the content the sector of the content the committee last their roprestities should have a form of the sector of the content the content them boing out on the content should have a form of ender the plan, infiniteted by first first deventee the first from Amontee, first first would mean substantiol staffing ond finantical powers remaining in locol government has not the sector of the content the sector of the local content to be sector first sector body. It is the sector of the local content body. It is the sector of the local means the sector of the local content the sector of the local content submitted to the committee by the stending

theme has been rejected because document submitted to the commit- and financed equally by the stending Conference of central government.

science correspondence Rescorch in polytechnics should be concentrated on "opplied problems of economic and social relevance", e Science Research Canucil report out bus week mokes clear. The SRC polytechnics committee, which prepared the report, will con-tinue to provide special funds, whought only at £100,000 a year, for epplied research projects involving collaboration between polytechnics and industry, central or local gov-erumont. Regional Advisory Councils does not

Regional Advisory Councils does not suggest retaining pawer over course opprovals. But it calls for the reten-tion of regional odvisory councils to perform a "strotegic planning" function in colloboration with the new nuisonal holy. It goes on: "This would involve this collection and detailed analysis of up-to-date statistical information from local outhorities and institu-tions in the regione. The regional bodies would also undertoko the co-ordination of forward develop-ment plons of the institutions invol-ved in edvanced further education in their regions for the national committee; it would then bo for the national committee to coordin-ote the various regional plans in accordance with any netionol torget figures for the various areas of work and the financial provisiou to be mode."

The document cloims that there is a strong cose for the regional bodies to be statutarlly established "with some clearly defined statu-tory functions". To demonstrate their luportant status the councils should be funded equally by the lo.a.s eod central government, ood should icclude teacher treinlag alongside edvonced further educa-tion.

alongside edvonced further educotion.
 Tho peper opnoses strongly the suggestion that there should bo o "cut-off" point, denending on the mount of odvenced work, that would dotormine whether on institution como under the notionol system. Provision af basic support system. Provision af basic filterit enough after recent financial support such after recent financial support is puterior even works of provision are often "sub-critical".
 The mouth of he national committee.
 The committee is to come under the solution of provision are often "sub-critical".
 The committee is to come under the solution is support is solut the polytechnics for resonable and for poet solution is support is solut for poet suppolotingly low. But even thas appolotingly low. But even thas that are nade stomil o significantly worse chance af heing eccepted that those from universitios. The total value of SRC research is solution.

forware this is by no means competition between equals. As that report says, polytechoice are ham-pored by their relative inexperiences in research—they do not know the SRC routes—and by the laadequacy-of their besic lobororory focilities.

SRC grouts assume a basic floor of support by the researcher's own hustituday, on the dual support system. Provision af basic support by universities has become difficult

with " universities for normal research grants from SRC subject

The total value of SRC research grants this year is £1.5m, compered to £64.5m at universities. This shows a slight catching up sluco 1975, whon the fighres were £1.1m end £57.2m. The report makes clear, however,

ther any lerge-scale expansion of polytechnic rogeorch will depend on an increase in the provision continued on bock page

Coventry college merger decided

knowledge of the possible effects on the public image of the university." The other major change in the document is an additional, cutterion for the appointment of course form cheirmen. The new clause demands I d'An awareness thet the serdemic and educational guality of the course depends upon the proper functioning of the course team, is a group, as well as the gualities of the chairman.";

Final soft OU line on public awareness

final report has abandoned this, and refers to " the need to be oware of commonly held views and bellefs". It continues: "There should of course bo no suggestion that views expressed in Open University courses should necessarily accord with public orlinion generally, or any particular sector of it. "Howevar, when a course team dollberetely chooses to express views which may conflict with commonly held views and beliefs, this should be done with full knowledge of the possible affects on the public image of the university."

Professor Gould ducks out of BSA

Professor Julius Gould has refused to appear before the professional ethics committee of the British Soci-"naming of numes" in his contra-versial report on Marxist influences higher education. Instead Professor Could, profes-

sor of suciology of Nottingham Uni-versity, this week resigned from the which he helped to found he the early 1950s.

the early 1950s. In his resignation letter to Pro-fessor Keith Kelsall, Emeritos Pro-fessor ot Sheffield University and convener of the professional ethics committee, Professor Gould main-tained: "It would indeed be an extroordinary code of professional ethics which could be invoked to complain about the use of publicly uvailable source material or which made it en offence to indicate that individuals have commoved books or individuals have commosed books or articles contoining views or state-ments from which one powerfully and legitimately dissents. . . . " The report, The Attack on Higher Education : Marxist and Radical

Two occupations

called off

by students

Penetration, published in Septent- those who may wish to effect such her, had, he claimed in the letter, a transformation. "simply reproduced without comment or amendment certain lists which allors had published in 1976 and 1977 and which had already received wide publicity ".

There was nothing nuclhical about there was forming merinear move the use of publicly available docu-ments and since this way the sale matter under complain by the BSA Professor Gould said he was not

propared to meet the runnintee. The BSA has expressed deep concorn about the use of names and fears that is could lead to black-But in the letter professor Gould being an universities and colleges. But in the letter professor Gould barge number of serious and con-maintained: "In seems to me that if I were to submit myself to the BSA's procedures I would help to set up a serious and undesirable precedent—one which could bo used against other; and on a much wider basis.

the National Assortation of reachers, in Further ond Higher Edocation,

He said fley were already disilla-sioned. "They want to get a job. Then we inject flolland at consider-

able expense and with considerable publicity, but if it doesn't better equip them to get o job there will be trouble. What they don't want

ing for increased staffing and timo for staff to work out new curricular

programmes suitable for them. There should also be time allow-

ances for special training courses for the staff involved, he said.

"We are now enneerned that by

September next year colleges are prepared for the youngsters and with the right level of stuffing to

passed judgment on the report. If they see fit to censure me or otherwise matheatalize me more form-ully, they are at liberty to do su." There were, claimed Professor Gould, amy who had publicly rejected the BSA's plaint to be a " pro fessional association " and his deci sion to decline to take part in "whatever exercise the BSA In tended to pursue" would gain sup-

purt. "Since this is my carefully con sidered position, I must now (as a largo number of serious cotd cun-"So far as I am concerned I have reasons put forward in defence of no wish to see the Gould report hy Professor Could were turned into the Gould 'case' and I shall play no part in assisting by the association.

Warning of young unemployed backlash to Holland proposals

by Peter David

Students who occupied the adminis-tration building at Aberdeen Uni-versity two weeks ago in protest et Unless there is quick action by the Manpower Services Commission the the nuivsraliy's investment in cnu-ponies alleged to have interests in South Africa called off their occupa-tion last week. first phase of its youth opportunities scheme may result in n " backlash " from unemployed young people, Mr Bill Boaden, education secretary of the National Assortation of Teachers

The occupation ended after more than 1,200 students stiending a union meeting voied overwheim-ingly 10 end the oction, which had failed to persuade the university

Att Brunel University, too. students voted to end their accupa-tion ofter the university's vice-chancellor, Dr S. L. Brugg, attended a union meeting. The students were demanding

that the university should not intro-duce different fees for humo and overseas students.

£30,000 p.a. for

'Ruskin of North'

he trouble. What they don't want is a general studies course writ large for the good of their souls." To ensure the value of the courses offered onder the Halland pro-gramme local education authorities had to know soon how much money to expect from the MSC. Mr Boaden warned that many col-leges and staff were not well pre-pared to take on the new type of young anonplayed calered for in the new scheme. The NATFILE was osk-ing for increased staffing and thus The Department of Education and Scionce has approved the develop-ment of the new northern residen-tial college for adults in Barnsley. The college, which will offer cour-ses from September, 1978, is to receive an cannuel £30,000 grant from the DES.

It will be awarded a grant total-ling £23,000 for the 1978-1979 financial year.

The new college, dubbed the "Ruskin of the North", will provide two-year, one-year and 10 week two-year, one-year courses for adults.

Overseas continued

and training in order to reduce the abour sopply. In a five year plan published this week the commission paints out that the expected economic buom is

unlikely to reduce the level of intemployment to ucceptable levels. It estimates that some 1,340,100 new jubs would have to be created In the economy to reduce registered intemployment to a level of 800,000 in 1981.

Although the report orgues that Although the report orgues that "this is not an impossible task", it concludes that murniployment will remoin high relative to past levels. It calls for a study of ways of reducing the labour supply through early retirement, reducing overthue or work sharing. or work sharing. "A further possibility, and one

that is in many ways more ottrac-tive because more pusitive, is to encourugu moro ynung people to enter further ond higher oducotinu and to expand meatinnily uriented

and to expand recationally oriented education and training for adults." According to the report develop-ment of this bloa would require on extension of "the present Increas-ingly close cooperation between the education and manapawer notheri-ries". But Mr Geoffrey Holland, director of planning at the MSC, made it clear over the weekend that this did not mean expanding the education service.

Soptember next year colleges are prepared for the youngaters and with the right level of staffing to tun these programmes." The MSC is considering trans-forming the whole of the 16 to 19 age renge into a period of education

SAUDI ARABIA

DHAHRAN

University of

Petroleum and Minerals

Tories claim NUS successes

by Jane Feinmann

The National Union of Students' The National Duppen in Students' executive has adopted a large mun-ber of Tory pulicies over the past six munths although must members are left wing, the chairman of the Federation of Conservative Students alleged this week.

Speaking of the federation's Southern regimmal conference in Bournemonth Mr David Wilks suid the two Conservatives on the 17 member executive had managed to persuade their colleagues to make saven major reversals of pulicy.

Among them, Mr Wilks cired the NUS executive decisions to repeat the policy of denying a plutform to relat and foscist speakers, to suspend student unions which ban Jewish societies, and to reform stud-ent union finances.

ent union finances. He said that the FCS had been the unly political group to compaign for a reform which would imple-ment a minimum nationally nego-tiated student union fee. The federa-tion's proposals as to priorities— that the NUS should concentrate pri-marily of student issues—had also been largely accepted.

In the past three years, Conserva-tive students "had managed to engineer as dramatic a change in student nolitics no was seen by the student revolution in the 1960s." power.

Ho call on the fuderation to work for "more democratic and represen-tative structures so that a truly representativo non-Marxist N10 executive can be elected to serve student needs".

Public accountants urge local control

The control of higher education the maintained sector should remain with local authorities, according to the Chartered Institute of Public Pluanco nul Accountancy in its evi-donce to the Oakes committee, published inst week.

The institute's submission representation in the institute's submission representation in the second state of the second central representative huly sup-parted at regional level by hadles shullar in concept to the existing regional advisory rouncils.

regional advisory runnells. Under the proposed structure the central budy would have ultimate responsibility for the approval of conrses within nationally deter-mined rusources levels. The coglimation acguitzotions, ruparting to it, would ussess the need for converse in their connect within nationally deter-mined resources levels. The regional argunizations, reporting to it, would ussess the need for courses in their kroa and the costs involved. Each would be controlled by local edu-cation authorities.

THE TIMES HIGHER EDUCATION SUPPLEMENT Mrs William to lose some by Darid Dickson Welsh power

Mra Williams, Secretary s for Education and Strag lose her responsibility f indiversity higher educ Wules in anticipation of errument's devolution pois In o parliamontary an week the Print Minister ced that oil non-aniversity tions of higher and funde tions of higher and funde community services and

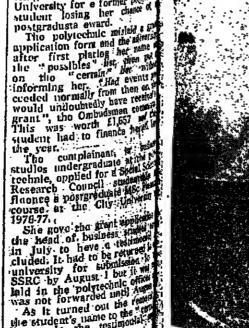
tion, public libraries, he is community services, and se community services, and se community services, and se continent would be transfered Secretary of State for the is mirearly responsible for mut secondary educate Mrs Williams will wise responsibile for the ter-which should for the ter-which should come hand April, the Welsh Secura become responsible for the functions related and twhich would be vested and which should come for the the functions related and twhich would be vested and the functions related and the functions functions for the functions functions functions for the functions

tiou proposals. But Mrs Williams we

pected to continue to the cies in the training and the teachers, higher education the work of the validation adult and continuing educ the supply of highly guilt.

Heriot-Wa priority appa

remained hypothetical. Secondly, many thousands of ex-periments had been carried out in this field without the appearance, let alone the escape, of any changed organisatis that were remotely dangerous. Similarly tasts alroady carried out had shown that the E. Coli arganisus used in the experiments had become so extered by mony generations of calture y mony generations of culture ader laboratory conditions that hey were incapable of existing in helr unrund environment, the



As it turned out the f distingthe the tail of the student's uame to the list made the testment fluoris. "I conclude there was istration by the polyredul and this contributed to the the complainant undouble fered through no fault of ha the Umbudaman's report and

hald in the polytechnic was not forwarded until

Minimum reguler contract for two years, ronawable. Minimum reguler contract for two years, ronawable. Lixelectit solorios and allowances, free air-conditioned housing, free elir transportation to and from Dhahran each two-year tour. Attractive education assistance grants for school-age dependent children, Local trans-portation allowance in cash each mouth. Six weeks pold vacoling each year. Apply, with complete resume on acadomic epil profes-sional background, list of references, and with copies of degrees, including personal date such as family atatus (with's malden name, names of children; oge bers, to 1

- University of Petroleum and Minerals, c/o Miss Elizabeth Whitochurch, Gabbitas Thriug Services Lfd., Broughion Houso, 6, 7 & 8 Sackville Street,

- Piceadilly, Loudon W1X 2BR.

Interviews are due to take place in London at the end and a series of the second states

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The Research Institute of the University of Petroleum and Minerals is seeking engineers, scientists and tech-nicians with experience in applied research at guvern-ment or industrial laboratories in petroleum technu-**STATISTICS AND** ACTUARIAL SCIENCE GROUP logy, geophysics, solar energy, remote seusing, environ-mental applitoring, building appropriate and todo paying :

The Statistics and Actuerial Solence Group of the Department of Mathematica. The University of Wastern Ontarior invites explications for an anticipated position. Preference will be given to applicants with demonstra-ted records of scholarly achievement in the area of probability theory. Duties shall include teaching graduate and undergraduate ocurses, direction of PhD lineses and conducting, research. Selary and rank are negotiable. Current salary minima are : Assistant Pro-fessor \$17,000 ; Associate Professor \$20,300 ; Professor \$26,500. Subject to funde haing available the effective date of the appointment will be July 1, 1978. Applications should be addressed to tar Applications should be addressed to ----

THE UNIVERSITY OF WESTERN ONTARIO



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The Director, Stalistics and Actuarial Science Group, Department of Mathematica The University of Wesleyn Onterio, London, Ontario, Canada N6A 589.

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research funds un large-scale fucili-

Lord Thomson of Monlicht ing at his installation affin of Heriot-Watt Universit Saturday, said the polycely

Most biologists think the potential the luburatory were taking place all dangers of recombinant DNA re-the time in the natural world. "But there could still be dangers search are negligilile, even though strict safety precautions are necessary, a leading scientist has claimed. The remark was made by Sir John Kendrew, director of the Europeon Molecular Biology Laboratory in Heidelberg, at a public meeting hold during the onnual assembly of the European Science Foundation iu Strauourg last week.

strong case to make in a when restrictions on special cased, "The timing of de Heriot-Wutt harder the ru said. He promised sulls

support the principal el con unking sure that our cash

its way to encourage new " This university is a set

Loss of awar

blame shared by Bert Looge The Ombudsman has bland by Kingston Polytechnic and the student losing her charted university for e former polytechnic postgradusta eward. This polytechnic misied a man application form and the american after first platlog her none the "possibles" list, then put informing her. Had events no ceeded normally from then as would unidoubredly have reserved would unidoubredly have reserved grant ", tho Ombudsman comparing this was worth £1,657 m tr This was worth £1,657 m tr Student had to finance here

by Bert Lodge

Applied research gets too much money-Sir Brian

Research funding has swung too Research mining has swung has ta towards applied science of the rapense of basic research, Professor Sic Ifrian Flowers, rector of Japerial College, Lundon, has

Sir Bright was speaking in Strassore during the annual astembly of the European Science Founda-tion, shortly after being elected mesident for a second three-year

need but it was now being readized that this was out true, Sir Brian

¹⁰ Of course, it is a very good

issuing a warning of some of the long-term problems to which current tendencies could lead."

tion, shorry after being elected treatencies could lead.¹⁰ In its manual report, the founda-term. Many people still belleved that it was possible to organize the whole of research according to human need but it was now being readized that is the oniversity and other inde-pendent faloramies, teams and in-dividuals have thereased in recent

sntoller scale activities. "The task of malataining the qua-

alde for small-scale gravitor: remains of large control", the re-scientific activity. If this prend bott save, were to continue to non-lone, the progress of science would be affected at its might " off control, it is a very good thing that there are these large large lities we are not complaining about communities in our communes at that. However, the formulation is former years The danger was particularly

pressing since in many harron-anneesing since in many composi-universities few recomment oppor-tunities, would arise in the next few years, contenting that was already distorting the age distribution in research institutions,

"If, in addition, research funds yeors in comparison with research for those few who can obtain funds allocated in institutions positions are very limited, a strong created directly by government and negative motivation may emerge this was not and, self.
Over the past 10 years we have created directly by government and in the vanner generation inward, run on support applied research, that is all which is necessary. But we as strong possibility that the sourcement of knowledge and new in government in the vanner, since there was a strong possibility that the odvancement of knowledge and new ideas with innovative critterin have their main origin in the vanner, should in penple trained through a data was concerned about the four-dation was concerned about the in groups in research institutes in groups in research institutes devited in less well-established and in groups in research institutes devited in less well-established and applied research will non-train or having the same of the s

"This is happening at o there when the first is happening at o there are decreasing amount avail-must be o decreasing amount avail-

mandatory

hy Maggie Richords

grant status

" Releidovincin on bally records worl could remedy the preasu-deficience; and nonnanca addici-⁶ Of conversibles a very good will have demonstrate effects on the state ogli at the grassroots level thing that there are these large takes vigon and creativity of the research satioan inquireme on national and

> a number of workshops aimed at bringing together young research workers in specially chosen ucas, particularly in the humanities and

> te social sciences. Horever, the assembly rejected a foul to help research workers to rooperate in projects involving more than one country in Future.

Instead it was agreed that com-mittees of the ESF might declare areas in which they would like to see fellowships awarded by member arganizations, and per forward names of possible candidates.

The assembly also agreed, in the light of a repart from on ad hor committee, to establish a standing committee for the social sciences under the chairmonship of M Jean-Jacques Salonnon, hend of the Science Policy Directorate at the Optimization for the Section Ca Organization for Economic operation and Development. Cu-

gating the education and training of serving teochers are being spon-sored by the Department of Educa-tion and Science at a total cost of obout £53,000.

RMC asks **Oakes** for more funds

by Peter David

autom inquirements on national interview statt at the London Regional import of utation clentific facili. Management Centre have written to thes?, the report says During the assembly, it was agreed in management of higher education in that the foundation should fitteness the utatitating sector asking for changes in funding. A submission fi

Keith Alan-Smith, the centre's direc-tor, and Dr Ralph Horwitz, its visiting fellow, claims that the Honever, the assembly rejected a appoint of numey it has received suggestion that the foundation may be "below a critical minimom" establish a centralized fellowship (for it to be effective in coordinating the work of the management depact-ments associated with it.

The contre was established last year in association with the Snoth West London College and five incer Lundan polytechnics-City, South Bank, North London, Thames and Central London. Its federal organ-ization is autone among regional management centres and bas resulted in the centre receiving only very small hudger of ics nwn.

In their letter to the Oakes com in their letter in the takes com-midee Professor Alan-Smith and Di-llorwitz say: "As a voluntary asso-ciation with only such authority os-enaceded by its constituent mem-bers, the LRMC offers special prob-lems in administrative organization and constraints he bulket is a cut-Two projects study in-service training Two new research projects layesti-gating the education and maining of serving teachers are being such sored by the Department of Educa-tion and Science at a total cost of obout £53,000. A BEd in-service research project Vill review all failtime and prati-time degree programmes. A project on school based train-

A project on school pased train-ing, directed by the letter lusist seorch fellow at the School of Education, University of Bristol, will take two and u holf yeors.

Biologists 'do not fear unknown OND may get dangers of DNA research'

He sold that although racoun-mended methods of cuntumment for such research are similar to those shready used for known dangerous pathagens, there were a onenter of important differences.

First, although the dangers uf recognized pathogens were known, the bazards of recombinant DNA

from this type of work", said Sir John, who is at present on second ment from the Medical Research Council's Molecular Biology Laboratory at Cambridge. "It is obsolutely necessory ta cam-

The obsolutely necessary ta com-tinue toking, the precutions for the present. But it is also necessary ta devise risk-taking experiments to discover what the risks could be." "They should be confined by re-assessed on the basis of experience

assessed on the basis of experiences ond the results of such experiments. And in the light of the reassess-ment, the goidelines for precontions should be readjusted either upwards

Sir John pointed out that in the United States, the lost set of recom-mendations mode by the National Institutes of Health committee caueerned with the daugers of recom-binom DNA research had proposed

downgruding of the precautians. "A number of respected biolo-"A number of respected biolo-gists have gone on record os sny-ing that the risks of such research ore considerable", Sir John smd. "I would say that the vast majority —and I count mysolf as one of that majority—thick that the risks ore actorily negligible, but time clone will toll " will tell.

Mure experience was needed and heir unrund environment, the human gut. Finally, Sir John ssid it was be-coming increosingly clear thet the lad of changes in orgenisms that biologists were bringing aboat in

National Diplomo and the Ordinary National Certificate, ore likely to receive mandatory grant status shortly hos come from Mr Ookes, the Minister of State for Higher Education. Ho hos olso revealed blut disussions ore to be held later this year between the Business Education Council and the Technical Educution Council on the role of part time courses in higher education

A hing the technical examination

courses, soch as the Ordinary

He was speaking an Monday at a two day conference on Industry end education held ot the Lancashire College far odult education... Unemplayment, he said, was

cretionary grout, and have their spplication for n mondotory grout turned down, while somaliody with turnel down, while somaliody with pretty poor A levels can go and tule a degree of the lesser conver-sities and get nne.

grants", he said. Mr. Oakes said there bod beeo a toudency nyb, the past 20, years to be more and more concerned with full-thue education, which had been oncouraged by the method of fund-ing colleges on the basis of full-tima places. "I will have dis-cussions with TEC and BEC later this year become there is growing

time caucation " he said. A tift was developing between those people continuing their full-time education oud then guing loio industry end those entering indus-try straight from school. "The whole prospect of part-time oducs-tion---not part-time vocetional coarses---neods exemination."

Starting in The Times next Mon lay, Ian Bradley assesses the eaction of scademics to the allegations in the Gould report abodi marxist iofluence in university and polytechnic courses.

TEACHERS National

Meeting **Parliamentary** Lobby

November 16th 2 p.m.

> Central Hall, Westminster

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in support of a just pay settlement

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Come to the cookhouse door, boys : o photograph of the cookie inding out staw to men of the 2nd Bulfellon the Conteronions on exercises near Glasgow just before the First World Wor. It is in on exhibition of 49 photographs which starts Photographs recording over 100 years of Glasgow et war which slarts loday of Glasgow University Library Exhibition area.

**ASSOCIATION OF UNIVERSITY** 

worldwhile disense which was throatening to becaue an opidentic. "In all countries II is the young who are worst hit. This poses social problems, most natably potential disoffection out politicol allena-

Auswering questions Mr Oakes soid he was concerned obout the present discretionary grant states of exumination courses such as the OND and the ONC. "It is absurd that somebody can be doing at OND course on a dis-cretioner, grant with here there

"We are certainly looking to a Bill during the year to give more mandetory rather than discretionory grants", he said.

this year because there is growing concern about the place of part-time education " he said.

The Gould report

# consortium urged for FE hy Maggie Richards

A proposal to form a maiobal open learning consortium for forther education colleges has been put forward by Mr Richned Freeman, director of the National Extension College a Cambridge.

Mr Freeman made the suggesting to n one-day conference on open learning and further cducation held of Barney College of Further Education last Fridny, It would ect es a central odrisory, information aml pressure group.

The conference, sponsored by the funity to discuss olternotive onen fearning systems, and to consider the problems of establishing and running such programmes.

Case studics on verious open leorning methods were outlined at the conference by representatives from Barnet, Nelson and Colne Open College in Lanceshire, and the Rowlincon Adult Education Centre in Shoffield.

Mr Freeman said it was not feato tolk la terms of spending arge sums of money or creating a mossive Open College on the lines of the Open University. Ile went on to outline the different roles which n new national concordum standing conference might fulfil.

There were still reactions of blank amazement" from many "black anazement" from many further education establishments, when the adoption of an open learning system was suggested. It incvitably rejected as impos-autil the ochlevemente of colleges were studied, he

Mr Freeman wanted to see informetion on the operation of these schemes made more readily available through u national consortium. Ho drought it possible that the group itself might cstablish research projects and pillor studies.

research projects and pilor studies. The consortium could also produce training packs for lec-iusers using an open learning provide advice on sutoring, coun-sching nud production of course materials. Colleges, he thought, could join forces through the consertium to press for more resources to bo made available, end their denands would bo stronger os a group them

would be stronger os a group than as isolated institutions.

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# Open learning | Public criticism will not affect MSC's plans

by Feter David

Senior members of the Manpower would not be inflavaced by public criticism of its plans for the new are included in the recommenda-£168nt a year training programme thous which the commission is prefor the yang memphored, due to setting to the flovernment." get under way next year.

has been which which we have furled to take Connicil uf Local Education nutice of the largo number of Andiorities, the National Associo-tion of Teachers in Further and the short of the publication of their con-lighter Education and these of the publication of their con-NEC ond Barnet College, was Andiorities, the National Associo-designed to give colleges on oppor-tion of Teachers in Further and Higher Education and a host of Higher Education and a host of submitte document, The Next Steps, pressure groups have all said the in August. The commission has mather is Ino few and their membership too restrictive.

Mr Gerry Fowler, MP for the Wrekin and former minister of state oversceing higher education, tohi a National Union of Students conference over the weekend thet the MSC statucture wes "n monstrous niece of bureau cracy". It disregarded entirely the suggestion in the Holland report, on which the programmes are based, that young people should have a say in running their own me- pconle." granimes,

It in the field requires that the pro-field of the field of the MSC's pluns grannics would require the recruit-to merge the Employment Services The staff would be drawn from suff Agency under a single directorote. "Purt of the objective there is to make almost impossible a hiving off of training null a rapprochement of education und training in central gorernmoal."

But Mr Gcoffrey Hollund, head of plunning at the MSC, told the conference that the commission was determined to involve young people in running the schemes, even if not in running the schemes, even it not on the main ereo boards. He sold it would not be right to pitch in-volvement at every level, but the coamission would try to huild up "networks of involvement" at local level, to which some control uver esources might be delegated.

Beshics writing the MSC report, Mr Hollund has been appalnted director of the programme to which

it gave birth. He told the students : "I have an intention of presiding Services Commission made it clear this week that the commission abioetiese of not include the proreport. I can assure you that they Mr Richard D'Brlen, chuirman of

get under with next year. The MSC's intention in run the schemes with fewer than 30 area boards to enver the whole country He said this week: "It is simply revised its proposals for the organ-izations of the new programmes in izations of the new programmes in light of the public response to the cousultative document."

But he mode it clear that the commission would be sticking to the broad outlines of its scheme where area buards would cover groups of locul education amborities. Under-neath the urea hoards, however, there would be a "major rule for infimatel local groups to generate idens and enthusiasm, hring for-ward idens for new projects and schemes and provide a direct channol of communication with young

He denied reports that the pro-

Mr Albert Booth, Scoretary of Stato for Employment, speaking at o work creation conference in London last week, denied there was my suggestion of appointing 70t civil servants to run the youth memplovment programmes

"In falmess to the MSC, I have sey that the form of control they have proposed is that representation on the area hoard committees should consist of employers, trade unloss, education, youth and volun-tary organizations and ouo member of the MSC", he said.

"I have not yet taken any deri-sion on the proposals but I shall be discussing the matter with a num-ber of interested people." He added that the me thing they had discussed use the me additional

had discussed was the recontinent of 8,000 suitable memphysed people to help with the programmes.



The English-Speaking Union wishes to announce the launching of its Language Competition, designed to encourage new ideas in the field of learning and leaching English

ELIGIBILITY: Entries can be accepted only from individues living, or working in Institutions based, in the United Kingdom.

BNTRIES: Entries should describe prac-sical projects which make an original con-tribution to the improvement of teaching and learning of English, with emphasis on the use of English as a medium of inter-national communication and understand-

The following areas in the field of language studies are suggested, bui the list is not meant to be exhausive or exclusive: train-ing of teachers; icaching materials; iesting techniques; language learning in doveloping countries; courses in broadcasting; diction-ary development; approaches to grammar; audio-visual aids.

SUBMISSION OF ENTRIES: Enides must be in the form of a typowritlen arilcio of not more than 5,000 words, prefaced by a summary on one sheet of paper of not more than 300 words,

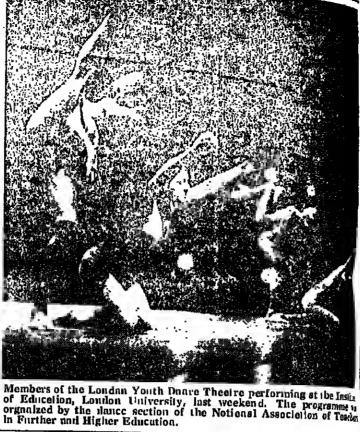
DATE OF ENTRY: Entitles should be sub-mitted between 731."March and 730" Junes." 1978, The results will be announced in October 1978, and the judges decision will be final will be final. 1 . . . . . . . .

AWARDS: The judges are empowered to recommend up to three awards of £500 and ten commendations worth £50 oach. The award winners will receive a medal and those commended a certificate.

Copyright will be relained by the candi-dates but those who submit suitable entries may be offered. commercial backing in order to develop their ideas.

Furthet information may be obtained

Mr D II Hicks MBE BA MBIM. Director of Education, The Euglish Speaking Union, Dermouth Honse, 37 Charles Street, London WIX 8AB



### Government policies | Cash squeeze limits have hit quality of college courses'

by June Feinmunn

Government policies aimed at pu viding alternative courses for sur-plus teacher training students have resulted in the validation of a mass of low-standard courses in colleges of higher education, the director of Enling Cullego of Higher Education said recently.

Mr Neil Merritt, speaking at Eal-Ing Callege's prosentation of degrees and diplomas, sold colleges were finding in increasingly difficult to provide their previous range of courses us a direct result of "nu-fortunet. Government patients "

"Degree courses which have bren arefully developed with a balance of options and core-subjects have hern jenpardized because, with a sutaller student domand for each since more are available, options have not been able to run." Mr Merriti said the Government

decision to result the supply a trained teachers was eight.

The standahle rush by the colleges and an error less or education, a less and an error less and stuting objernizer involutions called an so do so without the universities declaring publicly and stuting objernizer involutions called an in Scotland outside the universities declaring publicle developed courses were unst stop. Mr Merritt also called un the Government to iron aut present anomelles which gavo pulytechnizer and diversifying colleges of aducation greater freedam colleges of aducation, advantoge than colleges of aducation.

No said that it long-sunding and well-developed courses were to be allowed to continue, then the trend towords diversified degree courses with very low class and group sizes must stop. Mr Merritt also called on the

growth of science subjects-warning Technicol colleges are finding in

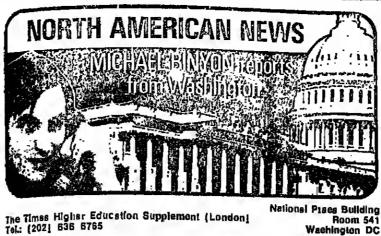
they channel develop new rough englueering and the physic sciences because the copie inse-ment needed is too great. It Reginald Beale, directed Glasgow Callege of Technolog, si subjects were essential to b product of the present cover situation their derelopment with " Heing Jahnratory based flegt

more expensive in terms of st buildings and equipment, be "Consequently even if we have fairly broad spectrum in day ment, it is ubvious that h speak to start thuse requiring the set expenditure much more reading phose with a greater rapital on ment and higher running cess. Dr licate said the drast re-Dr licale suid the dustic rea-tion in money surm on Gasa t'idlence of Technology had bee particularly damaging because the college's rapid growth of the past two years its lotal numbe of awards had increased by 60 pc cent white degrees had more that doubled.

# Offenders' treatment for study

The first systemetic intempt by a is known about programme designed of treating young offenders there is no basic inderstantiate is noiv understantiate the basic inderstantiate is no inderstantiate inderstantiate in the basic inderstantiate is no inderstantiate inderstantiate in the basic inderstantiate is no inderstantiate inderstantiate inderstantiate is no inderstantiate inde

Bit data supposed at a covaluate new method of treating young offenders is now under, way at the department of social odministration at the objectives, how programminic the objectives, how supposed or how superior and the project will sludy the effects of introduced the trostment superior to how programminic to how supposed or the project will suppose the project will be the project will suppose the project will be project be project be project be project be pr



In his final article on diversity in American higher education, our correspondent discusses the deep resistance to " central interference "

# Paying the administrative price of pluralism

versity odmissions policies could to hicreaso.

A few weeks ago Mr Joseph Cali-fana, Secretary of Health, Education and Welfare, rejected the ideo of any kind of "national" achieve-atent tests because they would limit this right of states to control their awn systems of education, He called the proceed new in Control their awn systems of cducation. He called the proposals now in Congress for a national basic-skill test "o stem In precisely the wrong direction". National control of curriculum was a form el national control of ideas. "We should be very wory of treed-ing in that direction", he said.

The two issues-the edmission of radal minorities to university and the introduction of ochicventent tosis-are two of the most vexed and important questions in Ameri-can education today. Significantly, an underlying organized in both an underlying orgument in both cases is that nothing should be done to floit the diversity of American sducation at all levels. Whatever the pressures to the controry. Americans hellere this diversity is the major strength of their educo-tional system.

What can be danc to meinioin the pluralism of American educa-tion? State and federal nuthori-ties can lake positive ond negotive steps: supporting the iodependence of the private sector, delegating the sileration of funds to quasi-independent healing. differentiating independent boilice, differentiating between the functions of state re-Search universities, undergreduote-priented universities and com-munity colleges and resisting, as Mr Califano does, the imposition of netional solutions and stoudards on the whole neadamic community.

It has often been argued that heradays the major "private" or "independent" uolversitles aro beither private nor independent. The fast demise of the church-related colleges has also been pro-deted. Yet there does remain a relatively healthy oud, in research and sendenile excellence, extremely important independent sector. The important independent sector. The sates are, almost without excop-tion, eager to see this sector fouries and the research were they

Black chosen to head largest institution

An organient used by one of the orany peopla who hove written to The New York Times about the con-troversial Bakke case is thet Government interference with uni-

Waehington DC

Versity odmissions poncies could to increase. lead to a "bureaucratically laspired conformity". A decision by the Supreme Conri in Bakko's forour, the correspondent sald, "would harm pluralism". A few weeks ago Mr Joseph Cali-A few weeks ago Mr Joseph Calichusetts, for example, wide o large private sector, bolieves it cannot properly plan its public oducution without taking Harvord, MIT and others into account others into occount.

Within the slote sector itsolf Within the stote sector itsolf diversity is encouraged by ontlining separete functions for various insti-tutions. California's Masterplou, drown up in 1960, is o leading exemple. To avoid westeful limino-tion nud to presorve peaks of excel-lence, the state designeted the nino-campus University of California us the olice means institution which the elite research institution which wes to adult only the top 12.5 per cont of California's students.

The 19 campus State University and Colleges System catered for the broad mildle band, and the large two-year community college sector formed the base of the pyramlil.

Many other states have since ilrurn up similor masterplans, and the uim of much recent "rationali-zation" and centralization of state higher education has been not to produce a group of ideotical uni-versities but to ensure that the liverse strengths of each institution are proparly protected.

At feileral level there is a warlness about any concentration of outhority — particularly funding authority—in the Department of llealth, Education oud Welfuro. Semi-independent federal authorities such as the Notional Science Foun-dation and the National Endowments

### Alaska tops spending league table

Alaska: America's largest state, ron timent to spend more per head on higher education last year than any other state. But Rhoule Island, the sutallest, has boosted its spending in the past two years by more than

The figures appear in the annual chart in the Chromele of Higher Education, which is prepared by Professor M. M. Chambers from the Appropriations to universities and colleges are nne-fifth more than those of 1975-76, and nearly 3.5 times the \$4,500m opprupriated 10 there are the main conclusions of years ago. Allowing for inflation, however,

years sgo, Allawing for inflation, hnuever, spending has gone up only 6 per cern in the pust year. Rhode Island spent 40 per cent nare on higher chication this year. But in torus of hny much it spent on o fraction of its income, the state is still less than hulfway up the list, at twenty-ninth. Over the post 10 years, Alaska has recorded by far the largest increase-643 per cent. Even allowing for inflation, Alaska's oppropriations have gone up 294 per cent since 1967. On averoge, the 50 states set aside \$71.36 for each person in Anarrica, up from \$65.21 last year und \$59.97 two years up. Per head, Alaska spiropriated \$167.57. Only three other states spent over \$100-Hawall with \$123.61 Wyoming with \$109.96 and Washington Stote with \$105.27. Bottom of the list was Maine, setting aside only \$42.36.

setting aside only \$42.36. Looking at the figures in com-parison with the reluire wealth of the stotes, however, ibe list changes. Utah comes top, with an oppro-puriolion of \$17.83 per \$1,000 of personol iocome. It is followed by Hawail with \$17.69 and Mississippi with \$17.50. New Jersey, a notoriously poor spender on all forms of education, came bonom with \$6.29. with \$6.29.

New Hompshire, however, whose ligures ore not yet complete, only well come lost in the end. For dae past two years this impoverished New England state spent less than any other both in terms of its wealth and per capital approprietions.

Ovorall, Americu appropriated \$11.12 for every \$1,000 uf personal income. The states high on the lifet tend to be sparsoly populated westorn states—Wyoming, Idaho, Arizons, North Dakota, New Mozico —and sovoral contigern states: Mississippi, North and South Coro-lina, Alubauto. Those sponillog least ns e fraction of their wealth are the old ladustrial states—Pena-sylvenio, Ohio, Hilmois, New York and states in New Enginud. These states, In a region of rela-Ovorall, America anneopelated

These states, In o region of relative aconomic decline, generally also had the smallest rises in appropriaticus in the past nvo yeors.

The international provided the second property tax. Increasingly, states are support-ing private universitios directly or Vork, spend huge sums on inedtu-tions in the university systems are they find more ettractive. The property tax. At higher education level, verio-tions in the university systems are ally welcomed by teachers and stu-they find more ettractive. The property tax. At higher education level, verio-tions in the university systems are ally welcomed by teachers and stu-they find more ettractive. The property tax. At higher education level, verio-tions in the university systems are ally welcomed by teachers and stu-they find more ettractive. The property tax. The women solution by the property tax. The women solution by the find more ettractive. The property tax. The proper

# **'A positive investment** for all concerned'

An exhaustive inquiry into going to university argues that the benefits far outweigh any disadyantages

A college education pays off handcharn in the Chronicle of Higher Education, which is prepared by Professor M. M. Chambers from the department of educational infiniti-stration in Illinois State University, Altogether America's 50 states are spending \$1,525,000m of public money on higher education this year, Appropriations to universities and colleges ducation pays off hand-somely. Its economic returns to a contry more than offset all the costs. A society's cultural idvance-ness uf individuals, their family relationships and their ability to cope with life's problems, are enor-colleges ore medifich agore than industry balanced by a college cultural industry balanced b

one of the most detailed attempts yet undertaken to unsiver the con-noversial question : is a university education worth it?

Dr llowerd Bowen, a speckelist in the economics of higher education, hus spent three years malysing the results of hundreds of research studies on the subject. "The evi-dence leads unmistakably to the conclusion that higher couconion, taken as a whole, is enormously effactive and productiva", he says in his study, published last week. Ifly conclusion has been given conshierable publicity in view of the steep rise in the cost of higher education, the worry about unemployed graduates and the doubts raised by the planomenon of the "ovcreducuted Ameri-

can". By far the most important proc-tical impact of college is on femily life, Dr Bowou argues. Higher edu-cation tends to delay the ago of ourriage and reduce the birth rate. It increases the throught time, energy and money deroted to the rearing of children, and this shows up in child dovelopment among tho children of college-educated people as compared with the children of

children of college-educated people as compared with the children of people with less elluention. Curiously, Dr Bowen says, the effects of going to university on traditional sex roles, divorce, mar-riage and family relationships have been overlooked. But they are pro-found. The traditional differences however, the scores in uncorest and between the sexes in luterests and between the sexes in lutorests and behaviour are uarrowd; the divorce rate of college-educated people is slightly lower; and college-educated people spand more time on their children and more money on their education. The effects of college are transmitted down the genera-tions and thus multiplied many times.

times. Turning to economic productivity and environs, Dr Boweu says col-logs helps its students by giving them basic skills that are useful in most of life's endeovours—abblity there are useful in the state of the state most of life's endeovours—ability to speak and write, knowledge null ability to leorn, rationality, toler-ance, orientution towards the future, adaptability, and solf-conflience. A colloge aducation also helps people function more effectively as consumers and investors, and so they get a greater return on their incomes.

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from 8 to 15 per cent, through some have been as low as 4 per cent and some as high as 20 per cent. Dr Bowen says the percentages of 8 to 15 are in the same range as the to 15 are in the same range as the rate of return to ordinary invest-ments. He concludes therefore: "If inrestments in higher education produce rates of return comparable to those derived from ordinary investments, when the returns include only monetary estimates, then the total returns to higher education including off the non-monetary benefits must be substan-tially higher than those earned from ordinary investments. One attempt ordinary investments. One attempt

ordinary investments. One attempt in measure the rate of return in-cluding all the benefits suggests that the return may be well above 22 per cent. Again, higher education appears to pay off haudsomely.".» This outcome of all this for soci-cty is important. The introduction into society of millions of educated people will inevitably modify the sociol environment, he says. It will influence the prevailing pattorns of interests, values, ottitudes and be-heviours. heviours.

"The result may be changes in the birth rate, child care, approcia-tion of the orns, health, voting behaviour, civie participation and gen-eral willingness to seek and uccept change. It is an accident that the campus and its alumni have played on Important part in the quest for racial equality, the ending of the Vietnam wor, the women's movement, consumerism and the envir mentul movement."

In addition, important social offects of higher education arc ochieved through research and pub-lic aervico. "The university is the Ile aervice. "The university is the headquarters in our society for basic scientific research which produces an exceptioually high return on the investment. Its return—in the form of increused occonomic productivity, better health, better working con-ditions—is sufficient about m com-pensate for the expenditures on all academic research and public ser-vice octivities." vice octivitias."

From universities also come on increasing complex of professors who serve in the Cahinei and in who serve in the canthe and in the civil cervice, who are members of special commissions, sent on foreign udssions, consulted on political ond technical issues by government und business. "Ameri-can society and higher education probably are both equicited by thu can society sud higher education probably are both cariclicd by thu frequent interaction between the campus and public affairs", he says, adding cautionaly, "though the intellectual objectivity of the col-lege or university can be compro-mised and its main business can be neglected through excessive in-volvement in protical affairs". Higher education in America is wave emensive. It costs \$46,000m

Higher education of America is very expensive. It costs \$46,000m u year to operate the colleges and universitioe and malatain their copi-tal. The extra expenses for more than 11 millioo etudents—their transport, books, the oatuings they give up while they are in college and so on—come to ebout \$39,000m. Altogether, Dr Bowen estimates, the grand totol is eround \$35,000m, or obout 5 per cent of the Grose Netional Product. It could be asked whether money is better spent of some places then others, and so Dr Bowen looked ot the different impact of various insti-tudons. He found that the differ-ences in educational Impact were less them were commonly eupposed, ospeciafly when allowence was made for the different backgrounds and abilities\_of students. The study oaks whether the disvery expensive. It costs \$46,000m

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A black is to head Amorica's largest uilvorsity. Dr Clifton Wharton, President of Michigan Ststa Univer-of the State Uolversity of New York, to Micbigau Stote in 1969. He was sitvate Uolversity of New York, the hugo ond complex New York of fewer colloge-age oudcots in the the hugo ond complex New York of fewer colloge-age oudcots in the the hugo ond complex New York of the state's highest oducotion the hugo ond complex New York of the state's highest oducotion the hugo ond complex New York of the state's highest oducotion Statee Complexioner of Education. Dr Whorion was tho first black ges at SUNY, including o contro-Truest Boyor, was the first black ges at SUNY, including o contro-Statee Complex New York of the Boord of Regents, the will have plenty of chollen-to control over graduate pro-truest Boyor, was the first black ges at SUNY, including o contro-truest Boyor, was the first black ges at SUNY, including o contro-truest Boyor, was the first black ges at SUNY, including o contro-

# THE TIMES HIGHER EDUCATION SUPPLEMENT DATE

### India **UGC** bids for major extension of powers

from A. S. Ahraham

BOMBAY

The University Grants Commission may shortly he given the power to recommend to the government the derecognition of a university's de-grees if it considers the university in question unoble to achieve or maintalo high cuough olundarils.

This is only one of a number of This is only one of a number of recommendations made by a com-mittee set up by the federal govern-ment in August, 1974, to review the UGC's work in "coordloating and determining" higher education otan-dards. The coordittee, which was areguired to propose mensures to strengthen the Coomission, has now subnitted its report to the federal education ministry in New Delhi.

Chaired by Dr V. S. Jho, the connuitee has proposed that the Presi-dent of India should be the Visitor of all the country's universities and that—this is the operative part— the UGC should advise him on all taitors cunterning university edu-cation. The Visitor, that is, in affect, the UGC, should be em-powered to issue directives ta all powered so the minimum of the state oiversities on the maintenance of standards.

To give the UGC a floger in the school enlucation file us well, it should, says the committee, have 18 members (it has 12 now), the extra members (it has 12 now), the extra six focluding experts in secondary, non-formal and rurol higher educa-tinu. It should be responsible for higher education planning and, to liaise effectively with the Planning Commission (which draws up the country's development plano), the secretary of the latter body should be an exofficio member of the UGC. By law, no new university or

By law, no new university or college should be ollowed to be founded except with tha UGC's approval. That body should loy durn guidelines on the enrolment policy for universities and colleges. It should, too, stimulate norms on the workload for university and college teachers at all levels. These norms should include the number of clossroom lectures and tutorisis, the amount of intercol assessment work and the conduct of resaerch.

The UGC, suggests the Jha com-mittee, should mointain pagels of experts in different subjects so that it can advisa universities and col-legeo in theso arcus. It should have the second secon

Greece

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that they have adequate funds. A the same time, a must lay dayn guilelines and procedures for manusing coornintees to function the best interests of colleges".

to cooperation with academic and profassional bodies, it must grade colleges and university departments colleges and introversity departments inder a "proper system of accredi-tation". It must also derise a scheolo for the annual evaluation of the performance of icochers and such an evaluation must be hacked by incentives for good and dis-incentives for unsatisfactory work.

licentives for unsatisfactory work, Finally, the Jha committee tecommends the formation of a "high-level coordination hody" comprising the heads of a host of organizations responsible for one kind of education and research or ocolher (for instance, the Indian Council of Agricultural Research, while is in overall charge of the country's agricultural colleges and universities, or the Atomic Energy Commission). Commission).

otittee, on which the UGC would onurally be represented, would seen to be to give it at least some say in decision-nucling in areas which are now rotally outside its

The general effect of these wide-The general effect of these wide-ranging praposals, if they ore occepted in their present form, will but to increase the UGC's powers vastly, chauge its nature funda-mentally and onke higher educa-tion throughout this huge land virtu-olly u centrally directed enterprise with the Commission—whase name the committee would like to oeo chauged, significantly, to the Unichauged, significantly, to the Uni-versity Education Commission—in overall command.

Such an uccretion of powers would be tha inevitable conse-quence of the inclusion of education in the Concretit List as one of among the 59 constitutional amend-ments rammed chrouch Parliamont

Such Inclusion means that ultimate legislative unitarity in the subject rests with the federal par-lioment, not the provincial legislu-tures. Pur bluntly, this means greater centralization with national coordinating bodies (like the UGC) hecoming more powerful before.

amendments, some amount of federal imervention, influence and control had been permitted in control had been permitted in higher cducation. As a result, the UGC had ulready become ovor the years a national caordinating body, in effact an arm of the federel government, with which every pro-viocial government omi every uni-versity had to reckan. But despite this, the states and the universities within them had a great deal of manoeuvrability in the creation and expansion of universities and affili-oted colleges and similar mattera. It is this degree of lutitude that could be drastically reduced if the present proposals are accepted by From time to thre, the committee recommends, the UGC should devise a "reasonably uniform "grant-in-aid system for offiliated collegas throughout the country to enoure the government in toto.

purty's education palicy.

| Italy

conuon nontrella and to rekindle u diulogue with students who have been alienned by the party's policy of cooxistence with the ruling Christian Democrats.

While hundreds of thousands of students jammed the compuses to enrol last week, the PCP's education "talk-shop" at Ariccia unnonneed a mass multilization of secondary and moversity students throughout the country for mid-Nuvember to lounch the new initiative labelled "The Movement of 1978". It said one of the principal aims uf the new movement was to holt campus violence by left and right-wing radicals, a phenomenon which

These holies are now inde-pendent of each other and the object of establishing such n comhas crippled the past academic The Ariccin announcement was quickly interpreted as the PCI's first step towords "detente" with impo-tient student supportero who hod become disillusioned with Govern-ment slowness in responding to their

France **Bill plans** increase

among the 59 constitutional among ments rammed through Parliament by Mro Gondhi's government during the emergeocy in the shape of the Constitution 42nd Amendment Act. icave provision is foreseen in a Bill to be lold before the National

thun

tical at any one time. This, however, is not the main problem. By law, employers are required to puy for only 0.5 per cent of their lobaur force. The difference, h is thought in some quarters, is not of the rea-Even before the constitutional sons why there is considerable reluctunee to take advantage of tho legiolotion. The government intends

Left launches 'detente' drive Student bodies are categoine. opposed to the introduction of a university closics but the PCI a demands for more job opportunities, impraved educational facilities and ROME grenter student participation in the choice of curriculum.

Italy's aculentic year began last week with a call by the Communist Purty (PCI) for a new mass sculent The Communist strategem was announced while in Rome alono the autounced while in Rome alono the first contingent of nu expected 40,000 students crowded the compus to onrol. The final date for enrol-ment is December 31, u date fixed to allow those now sitting for delayed matriculation examination o change to each the new readomic intovement in combac compus violence and support university reform within the framework of the The main objective of the PCI effort scents to be the desire to regroup the student left under a o chunce to eatch the new academic

The expected record enralment of Rome University will udd consid-erable pressure to the existing congostion at an institution considered the world's most crowded with a population of 170,000

The PCI-sponsored " 1978 Muvement" util who push for the long overthe university refurm Bill, promised since early whis your, which envisages two major changes: which envisages two major choiges:
 a diplomo after two years of orady ond on end to the current one-chair facilities which are to be replaced by a Bridsh-style departmental system where professors will be obliged to pool facilities and co-ordinate teaching and research. In addition where he has been be

In addition, there is growing controversy of government and academic level ovor how to solve the problem of disgranded graduotes now faced with memployment as the result of the rupid grawth of university education.

ing last week odvocated the nei for a more flexible view would would take into consideration is opportunities ood industed on apucut without curtailing a freedom of choice of profession I'CI leaders saw some of

solution la the politicization of a student masses---a greater so consciouce, more contact bena warkero ond studeots and economic planning and advice c

The current surpluo of graden o major cause of studen was hos been brought about by new policy initiated 12 years as it alluws those with secondary ch tion to go on to university, b the end of last year the using population hud increased by it per cent and the national sec per cent and the national side per cent and the national side nssociation cleims as many side million graduates are now un ployed oc engoged in jobs is be low their qualifications.

The new waya of university olments saw the appointment 2,500 ncw professors over the u year, but loctura hails reus chronicully overcrowded. Effes to pressure the goveragient to be construction on eight new using sitico, suthorized by the Calmer have so for fslled. (THES, North

### West Germany

### **Regional authorities prepareto** ban some student unions The Baden-Württemberg gove

### by Günther Kloso

The existence in law of a represenintive elected student londy, the Illgemeiner Sticlemennusschuss (AStA), or every west German uni-versity and its precise functions is re-enterging us one of the most important issues in the relationship batwaen universities and regional governments to the country. The issue is becoming near in the can-text of the revision of university legislation by the Lituder to fulfil their obligation. heir oblightants under the new Dulversity Francework Late,

Bayarin ond Haden-Württemberg are two states which intend to must-lsh the traditional self-governing students<sup>4</sup> unions, which are based no compulsory membership and fees from all students. In Baden-Wirr-temherg the ald AS1A is to be replaced by n " free " student assembly and a student conneil elected by it. The reason given for this

### function in that they edvise a dents on ucnilentic matters, and ive cultural events like const and run an employment servicifi vucntion jobs.

Nor would the banalog of \$25 hased student minus guaracte dissipatearance of left-wing \$35 Da the contrary, it could prove mure unrest among student \$25 encourage more destructive \$25 inside the university.

ment appears, however, to have be gotten that official ASIAs also be art important academic and with

It is for this reason that Bein includes to reintroduce the AsiA is the city : It was abolished duit the first stoge of university refea-legislation in 1959. Many obse-Lander, including North Rhim Westfalin and over the COU-Lander, including North Rhin Westfalin und even the CDF gaverned Rhineland Palatinate, pr to retuin a responsible self-gove

to retuin a responsible self-gover iog AstA. There is little agreement, here ever, on whether an AStA sheeld be enrifled to express au opinion on political issues not immediatly connected with studeot effair. Many student unions have in fect

# required to continue to the stipulation of conditions undor which workers could follow courses over the limits. In the stipulation of conditions undor which workers could follow courses over the limits. In the stipulation of conditions undor which workers could follow courses over the limits. In the stipulation of conditions undor which workers could follow courses over the limits. As it stands at the moment, the continue required to continue required to continue required to continue required to continue restrict. Especially significant was the stipulation of conditions undor which workers could follow courses over the limits. In the stipulation of conditions undor which workers could follow courses over the limits. In the stipulation of conditions undor which workers could follow courses over the limits. As it stands at the moment, the continue required to continue reguined to

17 pc qualify for places

 Arrow guaranty nor places

 from Sheila Walsh
 from Sheila Walsh

 Some 13/19 Greeke quolified title weithers for allocates the country of the form allocate the schemes. The chronically avarcrowded unit of the form allocates the country of the form allocate the country of the form allocates the form all

in paid leave

A considerable boost to educational

Assembly in the next fow montho. Particular emphasis will be laid on

helping young people under 20, with a special effort to attract schoul

leavers while any vacational qua-

Currently, only 2 per cent of the

labour furce in any one factory may go on educational ar training sabira-tical at any one time. This, however,

from Gny Neave

liflentions.

25, years.







It's a dreadfad night" the inn-keeper said in clussic Hollywood raditions, us I set out for Jesus Galege, Combridge, to wait for the glost. Ontside drear rain was again proving that front no matter what height it falls, it can still aim straight down the back of your

Lucas anceillingly leaving the pub because of a notorions drinking group, the Everlasting Club, formed in the early 1700s. It was so culled because among its unnecessarily spoky rules was one to the effect that mominership lasted aren after

On the night of Novomber 2, 17?6. the sole surviving club member sat down alone in a room at the top of "Cow Lane", one of the col-lege's oldest staiccoses, for the annual colorations. An old man, he took his place omidst six empty chairs reserved for the incorporeal

caus reserved for the incorporent presence of the other members. That night from 10 pm till mid-night there was a "hideous up-rear" in the room, after which the sole survivor was found dead. Since then people living to the room have seen or heard the gentlement and seen or heard the gentleman and seen or nearly the gentleman and other odditles at this thue of year. So oo November 2, 1977, I threaded my way through the portential Cambridge streets, thrown orreutial Cambridge streets, drown into manaluxed darkness by a power-cut. Eotering the gloomy courtyard of Jesus College, I reassured myself with the words of Andrew Mitchell who now lives in the room at the top of "Cow Lane" and is, after all, president of the Conservative Association. "I do not beliave In glosts", he told the over the 'phono, "but I am having a few friends round on the 2nd just to see if anything happens". anything happens"

It is just as well he does not because he lives at the top of the creeplest staircase in Western Europe. The steps are wooden ond Europe. The steps are wooden ond creak. The steep walls are covered in gloomy black and white Tudor paneling. When I arrived, a solltary lamps at the top of the staffs scat down a narrow sliver of light. Through the walls the sound of organ practice in the chapel near by grouped uningoity. grosned unhappily.

I was halfway up the stoirs when I was halfway up the stoirs when the lamp ivent out and all was darkness. Now a rational man world say "power cat" nud carry on, but I retreated hock down again and out into the nub where I decked this was not after oll o story that would interest ny readers much anyway and stayed until closing time.

However, Whitbrend ond the knowledge that I was staying over-night with a clergyman friend-who could if it came to the worst give the an exercistic once over before I relired sent me back to bear not a diddeeu uproze" but once over before I "dideous uproor", but warm discus-stoo on Tory policies. " No, seriously Laurence, Charles liao got a Up the Acropole

Point..., "Charles had got a I knocked on the door three lines: slow, heovy, leaden, gluosily knocks. "Come in", cried tha voico of Cambridge Rotional Man. You do not frighten Conservatives easily. Insido 10 young gaolamen were sipplog port, listening to opara and wondering whicther to turn tha lights out. The most frightening thing in thore was a reporter from the Cambridge Evening News who told me coofidantially that thare would probably ba a hoax as he had seen someoing white slampad in the cycle shod. Discovering that



A ghost similar to the one which

ald not appeor.

only part was on offer he left, requesting that if the gloss should come he be relephoned in the morn-

ing. Well, it didn'r. Midnight came' Well, it thin'r. Midnight came unaccompanied and all light, recre duly turned out. The clock struct: the traditional number and the lights were put on again. Cant-bridge rational of an had crimiphed and poured himself mother glass of pure

### Riches of the mind

Those of us who are not all that bright have troditionolly consoled r bright have frontionolly consoled ourselves that members of Mensu , are people who have not turned t their intellectual eminence into workilly soccess. This consolation has now been removed with a sur-vey carried on by the University of Austin, Texas.

Vey Carrier tim by the University of Austin, Texas. Professor Phillip Powell rendomly selected 1,516 Meosa members of whom 61 per cent replied. "The results were starting", he sold. It scenis that nat only are they clever, but they are ulso, blast them, rich. More than 40 per cent of the respon dents earn in excuss of £10,000 yenr.

One other finding of interest is that younger Measa members who attended more informal, radical, child-centred schools thought less of their education and teachers than these who hereod early when those who learned early whut chulk was, even if not encouraged to do creative writing with it. It was this older age group, those

educated under previous system, of education, who considered their education most satisfactory, made the best social contribution ond used their intelligence most posi-tively, Professor Powell found. There are, of course, many pos-

sible reasons, omong them nostol-gic inaccuracy and the wisdam of years, but the conclusion Professor Powell chooses to draw is that they "bring into question recent educo-tional 'reforms' which have been introduced largely without any experimental confirmation of their

After seven years without a Mop Itali, King's College, Cambridge, indu nor be able to refroin any longer from all-night duncing. The callege's student union has voted callege's student mion his voted to rejuin the Cambridge whoopee circuin. The more sober-sided and sensible students of 1970 decided that Man Holls were rother silly, "not the sort of entertainment that King's wished to be associated with", and in £30 a ticket far too expensive. But all that is now inoperative. A crowded meeting dockled that it wanted soutching more stylish that the rather down-heat "King's Juna Event" which replaced in. replaced it.

When translated into Spanish my conversation sounds six times longer. The interpreter who made contact possible between myself and Professor Jorga Angal Livraga Rizzi, the founder of the international philosophy group, the New Acropo-Ha Centro, also made any sparsa English iaquiries sopud intelligent and almost possionnte. "Why hea the New Acropolis Centre opened a branch in Lon-don ?", I asked. As the director of the new Internham Court Rood headquarters translated for what seemed like half on hour, waving his arms, stroking his beard, lob-

rently renovating a nluth-century castlo which, for some reason

. .

beyond translation, is shaped lil, sheep.

The objects a nully looking mon with a spiky monstache, had

This gave ide time to read another brochure which explained another brochure which explained that after an introductory course of philosophy lectures those who felt in tune with the humanistic abus of the organization could become full atembers. This involres paying 57 a month, comoniting one-self to the cause and either doing research or helping with the ruo-nlug of the fondon branch. Mr Ibernio Labot (who was notding oppreciatively at the pro-feysor's answers before translating 10 opens the centre friot 4 not till

It) opens the centre from 4 pon til utdnight every day. He works par time in a London how office and moved to this country to set up the decorntion of its four romus which -like ony new Acrophils renture -is entirely financed by member donations. But enough of this-th translation was coming at last,

translation was coming at hist, "There was not a centre here and England was the only outjor European centre where there was not one", Mr Luhat sahl. This was the only concrete detail to emergo uoidst much idealistic talk of iot-proving Englishmen and myone else who was to hand by oneans of applying philosophy to life. Professur Rizzl gave me his cord which was most impressive. It announced then he had been awor-ded the Grand Cross of the Im-perial Byzantine Order of Constan-tina the Great and was a Knight of the most Ancleot and Illustrious Order of Saint Hdefonso and Saint Atilono, but did not give his Atilano, but did not give l address or telephone number. "That is because he is slwa trorelling", Mr Labat explained. I

has invented an arganization a now it is a full-time jub just kee

### Whose LSE?

My LSE (Robson Books £5.25) hi hie bookstands last week and su cessfully rapents the winning fo mula seen in My Oxford and M Cambridge. It is full of manue drop plng about people and has neve heard of, cudless "formative losing control of cudless "formative losing ences on my life and thought" and of course, Gront Seminol Minds, not to be confused with the equally obligatory Groat Charactere. There is a fair amount of sex interest on control when any their

interost as contributors put their minds to the question: la the LSE asexual? Robert McKenzia of Swingnmeter famo recounts how he spent e night in the Three Tuns with an Anstralian postgraduate who declarad, while in his cups, that ha had no intention of returning to the family ranch until he hod "experiatented with every form of social behaviour knowa to man". Some of them ara outlined and should scrve th keap Mr McKenzia's mind occupied during long clattion with the

# Social sciences and developing countries



### Ralf Dahrendorf

Undoultedly, the social sciences, or ut any rate surial scientists, have obready made significant conscilutions to the understanding and solution of problems of developing countries. In fact, they may well have contributed more in the Third World than to the First World. When it because clear that the new Indian Government would he less concerned with industry than with rural communities, and more particularly with employment in runal areas, social economists went 10 work to discover the extent and kinds of unemployment.

The sixth plan, which is now being prepared by the plenning commission, will benefit from the

ocience disciplines relevant for development, Even the World Bank velopment, liven the Worki Bank has had to recognize by now ubat it fs not enough to provide technical possibilities, but that people have to use them, it is fine for an indisonininate sup-them. It is fine for an indisonininate sup-them. It is fine for an indisonininate sup-them is to breed hybrids with faunters refuxe to buy now seeds every year ? Ambropology, or attievery year ? Antheopology, or attiha tude atudies, can certainly do no have in this field.

If one looks of the examples, they have two features in common. behaviour knowa to man". Some of them are outlined and should scrve th keap Mr McKenzia's mind occupied during long claction nights. Contributors are also of great prains to discredit the popular view that the LSE is o hot bed of Red dissidence. Unwittingly, B. K. Nebry, the Indian ingle communi-sionor to London, gives the amplication of the social sciences in question have us proof with an account of the branch-taking nepotism required to get his proof with an account of the branch-taking nepotism required to get his the bad been rejected and was all set to go to Notiogham, when lie met the King's personal secretary One is that the social sciences

Be bud been rejected and was all bear socief science or perspective on raising in this bar socief science or perspective on raising in this bear socief science or perspective on raising in this bear socief science or perspective on raising in this bear socief science or perspective on raising in this engineer is a construct or perspective or raising in this bear socief science or perspective on raising in this engineer is a construction of the social science or perspective or raising in this engineer.
The bod been rejected and was all bear socief science perspective on raising in this engineer is a construction of the social science or perspective on raising in the social science or perspective or raising in the social science or raising restricts the social science or social science or

In the developing countries dicurrelyes, on the other hand, it appears that many young social science students prefer the "soft" subjects of incid-equential social unalysis, or ideologically suspect "theoretical" approaches. Not susprisingly perhaps, many of them find it difficult to get a job.

I said it would be easy to castlgate such practices, and I meant It, There is nothing wrong at all with the Fare Medal going to sudents from Asia ar Africa for over, if they are the best, or with sume of the leading theoretical conomists coming from developing countries, or indeed with the laportaat contributions of social science generalists from Indio and Brazil mid elsewhere. The question is not whether one should stop anybody from what they want to do. It is rather whether the universities of the world offer enough for those who would actually llkc to prepara themselves for problem-oriented applied research in the social suicuceo.

In some developing countries is not for them,

There is a kind of social science suchbery which, while ideologically rojecting any assumption of the inferiority of manual work, nevertheless leads people to avoid getting their fingers disty by invol-vement in real problems. The upplied and the hard is regarded as second-rate, or es technocratic, but In sny caso as undesirable. It is easy to see that practical accial scientists cannot bo educated in tituls way.

when I wos in India and Indone-sopbisticated measure of employ-ment in the time budget of village people developed in this process. Elsewhere, in Indonesia, sudents of population have deched set up a central statistical office and thus provide for the first time e basis of information nout the duman facts of the community which is clearly indispensable for the development of policy. Nor ora soclo-economics, demo-graphy, etatistico the only social ocience disciplings relevant for do-When I wos in India and Indone theoretical concerns

So much for some observations. supported by people or finds from developed countries, a good portion of the energy should in my view be directed to hand and applied coucemus.

Secondly, I believe there to a

# NOTICE BOARD

Smith (English literature); R. P. Nohle (forestry and natural resources); Lan Peacson (linguisetcs); Alaa Graser (medicine); Brian Frier (medicine); A. G. Youell (padro-logy); P. D. Masefield (sanskriti; D. Z. Shapiro (sociology); P. M. Iminin (velerinary practire teaching mid). Part-line lecturers: S. Homilton, A. J. Hartley, N. Lothian, I. Marcian, O. J. Rankin (accounting and Dusness method); B. J. Hrown, M. M. Fondas (general practice); Dr Margaret Whitmore (orthupaedic sur-geryl; Dr M. J. Leckie and Dr D. G. MacLeman (jathology). Part-line temporary lecturer: R. Adler (philosophr1.

London

### Chairs

Dr Rebecro Posner, reader in the de-pariment of languages at York Univer-sity, has been oromoted to the chair of romance languages at the uni-versity of Oxford with effert from a dote to be arranged. Ur Derrick Chisholn, sector lecturer in oral needche and pothology at Glos-gow University, has been appointed ra the Goyd rhair of dental surgery of Dundee University from January 1, 1978.

John Notion-Smith, o former reader of English language and literature at Reading University, has been appointed to the chair of English at Dundee Uni-

to the chain of English at Dundee Uni-versity. Mr D. Bishop, under-secretary, local roads and transportation at the Depart-ment of Transport, has been appointed to the London Master Unifders chair of building at University College Londou from Jaouary 1, 1978. Dr G. T. Hest, senior research asso-clate st the Centre for Atmospheric Research ot the University of Lowell in Massachusetts, has been appointed to the chair of physics at the New Univer-sity of Ulster.

the cheir of physics at the New Univer-sity of Ulster. Dr P. Morton-Willisma, professor of sociology at the University of Cape Const, has been appointed to the choir of sociology and social anthropology at the New University of Ulster.

### **Open University** programmes

### November 12 to 18 Saturday November 12

10.80 · Open Forum: Transferring to Full-Time Sludy. 10.85 Time Work chieft chief: All in a Ouy's Work (1932: 1408 21). RABIO 4 (VHF)

6.30 Proparting for 1100 (Technology foundation course). 10.00 foundation course). 10.10 foll, Announcemental Algeste IIII. 10.10 follos years of Use Hown III the Dumps (PUII) prog 21. Thursday November 17

Mr R. Chosterman, senior lecturse in law st the University of Warwirk will take up his appointment to the chair of low of the University of New South Wales in January 1979 and not 1978 as stated in our issue of September 23, Mr J. A. Jordan of Birminglism Uni-versity has heen awarded o £29,000 granf from E. R. Squtbb and Sons Ine for resoarch on possible cervicol and vaginat abnormalities ofter ex-posure to stilbestrol in utero.

Noticeboard is compiled by Patricia Santinelli and Mila Goldie

### COURSES

| STUDY AT HONDE<br>for a London University Exteroni<br>DEGREE<br>Wolsey Hall, the only correspondence<br>college with full courses for London<br>University External BA degrees, providen<br>Individual instruction by highly qualified<br>intons.<br>Wolsey Hall has a renearkable record of<br>acolese at high propertion of the let and<br>upper 200 class Bonoura swarded.<br>Courses cover B.A. in One Subjects. B.Sc.,<br>At. I and It. B.Sc. Coon, L.B., B.O.,<br>Lordon University Origins and<br>Postgenatas Cen, in Education, College<br>of Preceptors Diploman, as well as a vide<br>rampe of profizional, career and O.C.E.<br>subjects class from the Principal<br>W MA IN Milligan NiBIS, TD, NIA,<br>Deul BAI, Wolsey Hall,<br>Oxford OX2 6972,<br>Therefore (MSS) 54231<br>(Ausafore after 44S, pun) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Wolsey Hall OSFORD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

Acoustie CACC Member ABCO Founded IAM

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### Universities Belfast

Lecturers : P. L. Phillips (law) ; J. G. Doherty (electrical and electronic englneering], C. A. Geddes Gordiani (physicol education); I. A. Sneddon (psycho-logy); J. S. Levt (economics); G. D. Johnston (therapentics and pharmacology); A. C. Ilaughion Green (child bealth); C. If. Webb (microbiology), The title of lecturer : N. T. Rowe The title of lecturer: N. T. Rowe (sgriculturol bacteriology); N. S. Gault (agricultural and food chemis-try); Alan Cocli Bell (agricultural zoology); J. E. Metson (agricultural economics). Temporary lectorers: T. A. Agar (civil englueering). Part-time lecturers: Sir Robert Loury (pleading and practice); S. O'Brion (commercial inw); Dr J. Y. Cole (re-appointment in dental rodiology); Dr R. J. Skolly (reappointment in medi-cioe for dental students); R. Curry (reappointment in surgery for dental students), Part-time odviser to the Council of Logal Education : Professor B. W. Warwy Council of Legsl Education : Professor 8. W. Harvey.

Appointments

B. W. Harvey. Dundee Sonior lecturer: Dr D. Parratt (bnc. teriology). Lecturors: Dr Ruth Osrker (bacterlology); P. D. Canteron (juris-prudence); Dr I. Clark (psychiatry); A Dearon (bacterlology); Lottise A. Guy (physiologyi; Dr W. J. Harvey, Dr R. M. W. Horner (rivil engineer-ingj; S. F. Hubbard (biological sciences); Dr David May (psychiatry); P. Rinnier (dental surgery); Dr J. A. Robertsini (pathology); Dr J. A. Robertsini (pathology); Dr J. A. Robertsini (pathology); Dr J. A. Buirchell (biochemistry); N. Cliristoff (biologiral sciences]; Aritim Datio (biologiral sciences]; Dr W. S. Hising (medi-cine); Dr K. F. M. McNelli (deminato-bigyi; C. Proud (biochemistry). Edinburgh

### Edinburgh



Section to.

Portrait d'Andre Broton by Andre Mosson, one of the exhibite et the "Dsda ond Surrealism Reviewed" exhibition to bo held next yeer of the Hayward Gallery by the Arts Council. There will also be lectures in schools end colleges, surrealist films of the Nollocal Film Theatre, os well as weekend conferences and evening talks.

Recent publications Managemeor ond Businers Education in the Themes Valley 1977-78, a refer-traioing managers, and cargers advi-sers contains details of courses avail-able st uolveridites, further education colleges and in indopendent and cour-munchal organizations in Berkshire, Bucklinghamshire and Oxfordshire, Available from the Thames Valley ton Street, Slough SL:1 1YG E1.30.

Forthcoming events

A day school on the long-term offemler is boing held on November 19 at the Middesex Hospital Medical School, Cleveland Street, London, W.I. Fee: 14. Further Information from the Deputy Director, Dopartment of Extra-mural Sindles, 26 Russell Square, Lon-don WC1B SDP.

Le Rai Se Meurt, by Jonesco, is lucing performed in French at the Muniford Theatre, Cambridgeshire Callege of Aris and Technology, from November 16 (n. 19 at 8 400). Tickets 60p and 40p for students. for students.

Management und Participation ", the second monagement research lecture of the Transes Valley Regional Mianagement Centre, will be given by Drank Hellor of the Taylonck Institute for linman Relations at Daford Polytechnic, Headington, Daford, on November 17. Further details from Dr Roger Bennet, Thames Valley Regional Management Centre, Welllugton Sireet, Slough SL1 1YG.
\*\* Monning merchant ships-problems and renaciles ", the Thomas Gray Memorial lecture, will be delivered un November 23 by Coptain G. W. Waksford, formerly director of the school

Grants

Physluingy—Professor J. H. Wuisten-croft; £23,114 from MRC for supra-spinal influences on the Hessir with drawal reflex.

Education—C. V. Platts; £15,193 from SSRC for an observational study of science reaching in school laboratories. Space research—Professor A. P. Will-more and Dr A. K. Skinner; £19,481 from SRC for X-ray lunging for Space Lab 2.

of navigation, Southampion int the Royal Society of Adam Street, London WC

"Teaching and Learning in B Studies", the tweith conference of Studies", the tweith conference Stanishing Conference on Educa-la being held on Noranie Mil-Shefticid City Polyichtle Toky (achide "Du studens lear to teach ?" by Vida Carver, 604ct confinator for health and sold v confinator for health and sold v consec, Open University, Fact table froor Stephanio linitians partment of Education Strikt, field City Polytechnic.

"Student Housing" a catelor ing to be held at the GCC tool on November 21, will discuss educational authorities are refer of the problems and are deter Further information from bar-Course Assistant, Faculty dis-mental Studies, NELP, Feel Walthamstory E17 418.

Ootany and microbiology-CKM the SRC for the study of leader kron aniphur proteins and margo-phonesynthetic electron transm M. C. W. Evans). Chemistry—(18,944 from the full the study of pharmacological pages of isolated guinea pig 606 other cells (Dr F. L. Perce); f2L700 is study of the systhesis of the page roughgated systems under the 2 lion of Professor F. Sondbias. Civil and municipal engants CiG, tiB from the SRC for by c of design implications of geometry direction of Dr J. G. A. Croll Intro and Dr A. K. Skinner ; L19,481
from SRC for X-ray lunging for Space
Tronsportation and environmental plan-ing — Dr G. M. Mackay ; E62,555
Tronsportation of Informet to Environment for meet of Environment for the sci investigation of Informet for the sci of ownership, price ond mangza landon's Green Belt load with direction of Dr R. J. C. Nam.
Chemistry — Dr J. P. Shoots : E32,700
from SRC for molecular dynamics of excited stato reactions.
Physical meinlingg—Professor R. E. Smallman and Dr M. H. Larertio; E117,122 from SRC for high voltage cleation inferoscopy of intertials.
Chemitral engineering — Dr I. R. Hiltori and Professor J. T. Davies E21,618
from SRC for turbulent drag reduc-tion by related viny polymers.
Minerials engineering—Dr L. A. Data-jun; £27,750 from MIRH for dereing-ment of appinearing of for childing for the characterization of focculated studies and Electron for moleculated studies and the for dereing-ment of appinearing of foculated studies and processing networks matching and the for dereing-ment of appinearing of foculated studies and the for dereing-ment of appinearing of foculated studies and processing networks and the hinding for the characterization of foculated studies and processing networks and the hinding for the characterization of foculated studies and processing networks and the hinding for the characterization of foculated studies and the for dereing-ment of appinearing engineering and the hinding for muscular contraction and processing networks and the hinding for the characterization of foculated studies and processing networks and the hinding for the characterization of foculated studies and the for the characterization of foculated studies and the formediate file.

ettie. Physiology—£21,593 from the MC1 rescorch on the inmediate effi-supply for muscular contraction mi-the direction of Dr R. C. Gove. Statistic and computer science—1257 from the lieportment of Environ-for the study of computerized and inques of brond hand tonte release inder the direction of Professe F Wulkenden.

Sulford Mathemailes-£16,590 from the SS fue a project on statistical predete methods with particular referent i

Southompton

Southompton The Wolfson Electrostatics Advist Unit-E80,000 to study ignition hands in powder transport and surge spi-tents. About half of the funds han been provided by the Health as boety Executive, the test by Britts Sofety Executive, the test by Britts Europeon and American roments. Electrical engineering-E190,137 as billeeirical engineering problems there has electrical methods problems there has Professor Percy ond Ken Binns.

Warwick Computer science-Dr M. H. E. in-combe £50,800 from SRC for related on "mobile robot project". pr L. Physics-Dr M. J. Cooper, pr L. Dupree and Dr D. P. Woodraf-E21,592 from SRC for research of or E21,592 from SRC for research in the state physics. Biological sciences-Dr D. P. Woodraf -£23,585 from SRC for research of -£23,585 from SRC for research of fraction for more efficient surfar structure distermination. Warwlck

structure determination. Polytechnics

Sheffleld Sheffleld Chemistry and Elrrirical and Bi tronic Eoginserlog-515,000 fm NRDC for development of a motion device to detect tuxic heavy ments industrial offluent onder the direct of Dr C. Ebdoo lu collaborades a C. H. Layrock.

# Biological isborolory—Dr R. B. Freed-man; £15,555 from SRC for studies on protein neighbours in entoplasmic reticulum membranes; Dr C. I. Pouson £22,949 for Investigation on the Inter-section of anabolic storolds and liver motabolism in sheep.

Chensea College Biological sciences — Dr W. P. Wil-lians | £25,803 from Thames Water Authority for investigation into first disease in the river Lee system. Chemistry — Dr C. V. Boyd ; £17,731 from MRC for research on the syn-thesis of methylenelocones and methy-lonelactams with potential tumour — inhibiting properties.

Biophysics 420,299 from the MRC for ' research on signal tracsmission and noise in red bioplar cells during light and dark sdaptation under the direc-tion of Professor P. Fatt and Dr G. Palk.

recuperation. The questioning essociated with the two great debates of recent years— on university government (that is, student power) and on devokulom—ds stilled. The second debate was olways conducted omicobly -most oftee across one of the low tables they have in the Edinburgh University Staff Club. The first, however, Joft wounds that are irri-tated by incotion within cershot of senior uni-versity staff of the name of any of the rectors prior to the well-liked Megnus Magunsson, current holder. One such name is Malcolm Muggeridge. A writer in The Scotsman with a good sense of Presbyterian priorities called him an ascetic hin a 200-gninea suit. The general university view, for all that it is o great Christian foundation and still acts os hond-maiden to the Church of Scotland through its divinity faculty, it even less charifoble : Muggeridge as rector was "e disaster". Edinburgh, it must be oxplained, had its student troubles later than in the south. It is student troubles later than in the south. It is up unit! after 1970 that a aerles of events—Muggoridgo'e olaction and mis-handling of the rector's role as chairman of the university count, the breakdown of the strange unmodernized consiltution, and an able baod of student leadors willing to soize the hour—led to what Sir Hugh Robson, present principal, calle "e serious state of internal dissension." After Muggeridge broke the informal con-ventions goiding university government the students for a while disrupped the business of court. The putting down of "minor versions of totalilerianism" by the thon principal Sir Michael Swenn blackened the atmosphere further.

Pullution research onti-E16,000 fast the SSRC for pullution research under the direction of Dr C. Miller.

lite social sciences. Pure ond spalled physics-fitting a project contiled Theoretics of Experimental Study of UGMS at b

Chelsea College

University College

Universities

Birmingham

College. Reuder: Dr H. L. Shergold (mine-rol technology at Imperiol College). Title of reader: Dr R. N. Halley (French Ilterature, Olrebeck College); Dr M. A. Branch (Fluntish longuage and Ilterature, Schuol of Staronic and East Enropean Sindilest; Dr M. J. B. Duff (physics, University College); Dr G. Gatbella (histolingy, University College); Dr I. R. Johnston (blochemistry, Uni-versity College); Dr G. P. Kirkbright (chemistry, imperial College); Dr G. W. Offer (blophysics, King's Col-leget; Dr J. L. Reht (clinicol pinnua-celogy, Royal Pasteraduate Medical Schuol); Dr N. B. Satuders (physic-alon) (foad physics, Queen Klizabeth Cullege). General neurs, Steetrade and electrical engineering — Professor R. D. R. Shearanaa ; 420, 175 for proyagation research by 112 lack scatter out wavefront curvature camp-

Sydney Waadman has been appainted finance officer to the Inner London Kducotion Authority in succession to Nr K. E. W. Lovell.

### Bristol

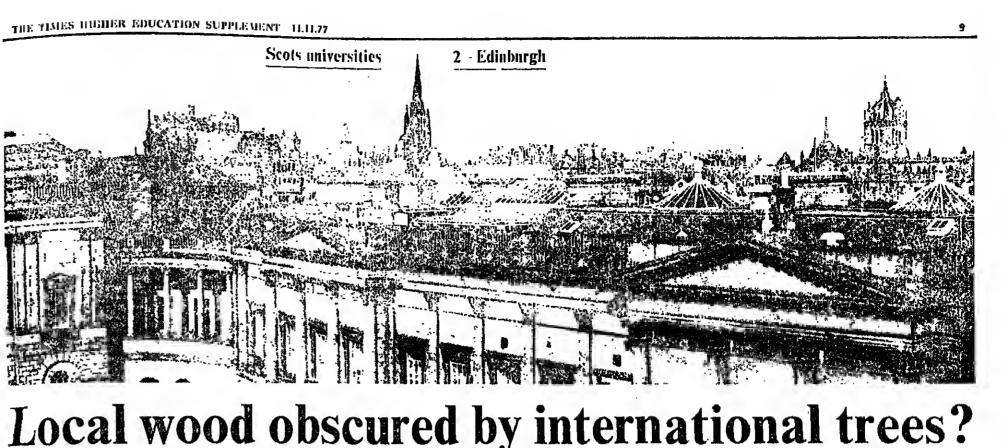
Asilemolies—£50,410 from the hydran-lics research alation for study of run sp ond associated processes in the surf zone of a beach.

### Dundee

Dundee Medical blophysics, mechanical engin-eering and orthopaedic and troumatic surgery-Professor J. J. Mariin to-getiler with Professor A. D. S. Baar and Professor G. Murduch-E53,640 fur work in the newly act up School of Bloengineering and Blophysics in Medi-cine on patient care in the field of rehobilitation ongineering; £13,650 from SERC for support of the re-search work of Dr D. E. Wolt and Mr S. Hughes on the sosimetry and bloological effects uf neutrum rodiation. Hull

Social aduinisiration—Dr A. MrGlaugh-lin £22,710 from SSRC fur his invosigation on early child dovolup-nicni ond the house onvirusment.

Kent



Edinhurgh is a sleek city end its univorsity is vise in the ways of the world. Large and successful and further along the modern rand than the other aucient foundations in Scot-land, it basks in the University Grouts Commilice's opproval, research council recogni-tion and has a proud record in medicine, natural scieoce, orts and letters.

It is not, however, complacent. Compared with the snugness of St Andrews or the workaday effectivoocss of Glasgow, Edia-burgh even seems to adult self-doubts. Fer-heps the city which contains St Giles Cathedral and hosts the general assembly of the Church of Scotland fosters o puritan

streak in university life Temporarily, however, Edinburgh is in recuperation. The questioning essociated with the two great debates of recent years—

Michael Swenn blackened the atmosphere further. Looked at in reprospect little damage was done to the fabric of the university. Students spurod on the modernization process— changes in rapresentation on court and senate, reductions of direct professorial powar within departments—but it was file junior non-professorial staff who did most of the push-ing. A rasidual bitterness towards student egitators" is left within the central coun-sels.

David Walker continues this series

with a look at Edinburgh University

Fer-ing the question.
Giles Behind the formal changes, too, Edinburgh is "distressing".
Giles Behind the formal changes, too, Edinburgh is "distressing".
Glossing Professor Muckintosh, we can is "distressing".
Glossing Professor Muckintosh, we c

The university is recuperating in the sense that it is now absorbing some of the fruits of the spinited drive for growth under Sir Michael Swann. Sir Michael's name is held in groat esteem in the physical science and biological departments. He was a great seeker after research moneys, he boosted postgrad-uate numbers, and he played the research council game with skill. His tribute is in the fact of Edinburgh's present high reputation in hiedemical, botanical and zoolugical research. research.

In other departments doubts are reised. Sin 141 other ceparanous courts are reased. Sh Michael burned with ambition for Edluburgh es a British university, some feel et the expense of its true being in Scotlond. This autoivalence runs throughout the university's

life. Sir Hugh Robson, o Scot, is e very different man, hui it would be wrong to paint bin as undynanic. Indeed Sir Hugh's regime scems to have encouraged a spirit of positive res-ponsa to the financial difficulties of the pre-sent quioquennium. Part of it is the remark-able dogree of decentralized administration leaving room for independent Initiatives.

Man for ordered times. The plciure in 1977 is quiet. The chird manness are observed to allow of the charamating of the charama

"I am against Scottish studies if it means studying something that would not normally be donc-but it is remarkable that Scottish history is not treeped as a speciality. It is foolish not to exploit the local connexion, just as if Newcashie University were to fgnore the history of Northumberland," Professor-Mackintoshi says. The voices most strongly opposed to any version of the "localist" argumont are those of the noturel scientists. Edimburgh Univer-sity is physically split: most of the scienco departments are on a separate campus three miles from the city centre. There, at King's Buildings, as the site is known, is concen-trated the weight of the university's distin-guished scientists. They depard on inter-national connexions and any mention of Edinburgh oity district council, Lothian regional council or even Scottish governmont hes them either chorthing or in deadly earnest about the demise of Edinburgh as a centro for acholarship.

indynamic. In deed Sir Hugh's regime scems to have encouragod a spirit of positive response to the financial difficulties of the present of using the senter of the sent quioquennium. Part of the is the remarkable dogrea of decentralized administration. I eaving room for independent initiatives.
Two examples will suffice. First, accommodation initiating the rented rooms, three in privataly rented rooms, three at home with percents and family, and one in lodgings. Potentially thore could be a serious accommodation shortage. Among the reasons it is she flexibility shown by the eccommodation is the flexibility shown by the eccommodation dation service.
The other example is Edinburgh's great success story, the Pollock halls of residence. A far-sighted committee in the past developed. A far-sighted committee in the past developed. A far-sighted committee in the past developed. Success is success of loliday and conference accommodation. Such activities, even if they save serve money, most setting the setting of the past served not in the contra of its basis past of the past bases served not in the centre of its past served not is sublement rooms but a lucrative source of holiday and conference accommodation. Such activities entries and conference accommodation.

In recent years a posse of educational radi-cuts, unong whom Gordon Brown, Dr Nigel Grant and Mr George Foulkes, convenor of Grant and Mr Georgo Foulkes, convenor of the Lathian Region oducation committee stand and, have pressed the university to be more community minded and more open of occess. Inevitably their strictores have mingled with the nationalist movement's complaint about the lack of Scottishness. Ammunition has been to hand in the shape of some vory interesting and often high-quality acadenic reports from staff such as Dr Guy Nesve and Mn Andrew McPherson detailing the social class composition of the detailing the social class composition of the student entry.

The strands are pulled together by Dr Grant who says: "Edinburgh University camo to prominence in the inhisteenth century boceuse it onot the needs of the time; it has got to do the some agein." He means paying more attention to the Scottish dimension in cultural studies and education, and first end foremost joining in Scottish government.

Majority opinion in the university would probobly back the indgment of the profes-sor and head of the deportment of business studies, Dr Normon Hunt. Professor Huot, a member of the UGC itself, calls Edinburgh "quito remerkable in its ndaptability". He culls evidence from his own department, the first to be set up in Scotlund and among the first depaytments of business studies in the United Kingdom to be linked with deport-ments elsowhere—at Glasgow and Stroth-clyde in the Scottish Business School.

### Better civic relations

The evidence for the university's adapta-bility is manifold. It is not just that a six-teenth century foundation has become a thriving twentieth century institution.

theriving twenlieth century institution. It is that the university is by und large nble to read the signs of the times. For all the viclositudes of relations between it end the city—until the nineleenth eentury the town council ead yea or no to professoriol appointments—they are now at a point where Sir Hugh Robson says he oftends ell the civic ovents he can. During all the brouhaha over George Square end the architectural rape of the South Side there was a sneeking feeling of comradealip between the university and local entharity. Both wore large organizations bound hand eod foot by decisions (sken docades age and utterly dependent on extor-nal sources of finance. Edinburgh University case when charged with foresaking the Scottish community in t pursuit of metional or international glories fer threefold. First, of its 2,000 new under-scottish. This is felt to be the right balance. All the undergreduates are taught by the conventions of the Scottish degrees system and its quality, together with the prize quality of the hononre etudents, is held to depend on

THE TIMES HIGHER EDUCATION SUPPLEMENT



Is education a pain in the neck?

# Maggie Richards on Sheffield's approach Mapping out routes

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lass ureas.

resent provision.

The first pure of their work-a mapping exercise to discover those taking part in adult education and where they live-chas now been published.

The report says adult concation students in the city are generally home-owners, and employers, anon-agers or professional workers. And

e research revealed a strong link tween participation in adult edu-

cation and previous achievement in further or higher education,

### to adult education is been taken forrarols te vist nomber of "un-" adults who are not partion, which includes representative from all the city's interested age ticipating in while education in Sheffield, where a resourch team of six has compiled data on the rity's

cles. Eventually, the working group: tends to establish an adult effor-tion counselling and informing service, and to produce preparing courses to lure new adult studen. A conference organized last is by the working group led to be research project and the cough that of o compendium of adults! So far 150 capies of the coust.

tian of o compension of sound, s cation choices in Sheffield. Su far 150 capies of the costs I dimin hove been printed and s k out according to the work a group's clourman or Bill Barad in Sheffield University's extreme

For the questionuaire and in mupping project, the 5 per ce student somple was extracted hu abults taking part in day and so ing courses run by the local ed-tion outhority, the Workers' Ed-tion Authority and Sheffield L versity's extromutal departme. But the sample was confined to so dents on open access coursed. The team discovered that friek and neighbours appeared to have a The team discovered that field and neighboars appeared to have a important role to play in dis-minuting information, and in mel-vuting and sustaining attended at addit education classes. Most of the students in its sample were found to be high within a mile and a half of the reduit culturation courtee and the

physical resources, too, have grown impressively and the main site of Danbury is well equipped with residential accommodation, con-ference facilities, close-circuit tele-visiou and computor terminals. Iroulcally, what has hold up the development of many of the other 11 RMCs have been largely mana-gerial problems. Apart from a few lucky ones such as Sheffield, Ports-mouth and Bristol, which wore basad on single polytechnics, most of them have had to negotiato a acries of complex colloge mergera before starting work. The Northern RMC, for example, is linked to both Teosside and Sun-derland Polytechnics, oud another had to be cobbled up by Slough College of Technology, High Wy-comba Colloge of Technology and Oxford Polytechnic. In many casos the matringo betweon institutions was tense and competitivo, and inati-tutional situatives hoangered the development of what were intouded to be "centres of excellence" in management elucation



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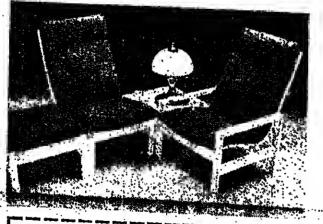
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car owners, and the provision regular bus services. Che owners, and the provision of regular bus services. School cutcharent areas proven significant factor, uccording to in report. Participation rates and appeared to be affected by the se-tion of achit colocotion sub-cents at lower or midbile schools-when parenta were more familiar with its surroundings. parenta were more familiar which surroundings. The texas calculated paris potion rates per 1,000 population each lucal government ward in S<sup>4</sup> field. This revealed a wido fa of participation—a high of 1099 1,000, and a bow of only 9 pt 1,000, and a bow of only 9 pt

while the second second

i,Mo, and a baw of only 9 pt i,MX0, and a baw of only 9 pt i,MX0. The report says: "The pictur tends to confirm the general so position that the more working class areas of Sheffield have loss participation rates." An isolito nap was constucted smoothing ont the data to rement small local variations, to preduce at averall wrend. This created "monutains" of high participation, futter "phains" of nore aven in-volvement, and "valleys" of for density attendance. It was ulan linked to da 1971 census for South Yorkshire. The report udds: "The high peak of anhalt enlacation in the wast of the city was found to correlate strongly city was found to correlate strongly with a high percentage of omer-necupied dwellings, while the lower

necupied dwellings, while the lower ploins to the north ond west occur-red in council-owned property, and its nally the older council estates. "The percentage of persons de-slfied as employers, managers as professional workers tends to be highest in the oreas which have a high adult education involvement. "The strongest correlation found was that of the distribution of per-suns in employment with an Ordin-ary or Higher National Conflicte, A lovel or dogree. The highest incidence of adult education rartici-pants followed virtually exactly the highest incidence of those with pre-vious utteinmont. Io further and higher education

Nighest incidence of Author 200, higher education,
"Convorsely, those areas with low proportions of persons involved in ndult education, at toinments have also low numbers of porsons involved in ndult education classes."
The roport concludes: "The general picture is that the present participants tend in come from areas where houses are owner occupied, where there are low new born of the population are employers. Most of all, they tend to come from oreas where a high percentage at the population has obready some attainment. In further on higher attainment in further on higher in the Location and Characteristics of the programment in further on higher in the comment in the source of the percentage of higher attainment in further on higher attainment in further on higher attainment in further on higher in the location in the source of the percentage of the percentage of the percentage of the percentage of higher attained on the source of the percentage of higher attained on the source of higher atta

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THE TIMES HIGHER EDUCATION SUPPLEMENT (L.H.7)



Everybody knows the old story about the manogement school where facturers seldom locate the right

about the indicate che right lecturers seldom locate the right classrooms, the photocopier is per-penally out of action, the key to the audio-visual centre has inexplic-ably vanished and the student bar runs at a wbacking loss. A visit to the Anglian Regional Management Contre quickly dis-pores of apocryphial storles of that kind. The centre's modern site at Danbury Park wear Chebnsford is run with spectacular efficiency and the student bar, needless to say, makes a handsome profit. Just how much that reveals about the educational character of an institution is hard th say. But the ARMC, he first of tho regional management contres set up by the government five yoars ago, is

government five yoars ago, is widely regarded as one of the few outstanding successes of a national management colucation strategy that has been shot ragged by its critics. In those five years the ARMC's staff has shot up from around 50 academic staff to nearer 80, and the range and reach of its courses have expanded at the same pace. It offers full and part-time courses in a bread spectrum of unangement in a broad spectrum of managemon specialisms, and its staff hava undertaken numerous ennsultancy projects in Britain and overseas. Its projects in Britain and overseas. Its physical resources, too, have grown impressively and the main site ot impressively and the main site ot

development of what were intoucled to be "centres of excellence" in management of what were intoucled to be "centres of excellence" in management education. The Anglian coutre could have been beset by similar probloms. It was born out of a potentially diffi-cult morger botween North East London Palytechnic and the man-agement centra of the Mid Essex Technical College, but conducted the merger with a conspicuous ab-sence of friction. Despite the structural changes and the rapid increases in staff numbers over tha past five years the ARMC recorded hardly eny resignations. The ori-single on and now identify closely with the aims of the new centro. The morger was helped by the lact that the centre's dean, Mr Bryan Littlowood, was en RMC co-thusiast who had boen e prime



Peter David reports on progress at the Anglian RMC

Management centre that knows how to manage itself



A business game in progress.

setting up national mover in management education policy. Originally based at the Mid Easex Originally based at the Mid Easex Technical Collego's manogeucut centre ut Danbury Pork, be aaw enormous advantages in merging with North East London Polytecb-nic—u much larger institution geared up to further and higher education which commanded large resources and would open up large tracts of north London os o market for management services. Mr Littlewood's team multipated government policy and began laying

Mr Littlewood's team auticipated government policy and began laying down plans for the new centra a full year before the notional RMC strotegy was afficially amounced. The woy ARMC rocketed alread by attracting staff und rasources owes as ouch to the doon's buccaneer-ing and manugeriol tolents os to the goodwill of the institutions and authorities on either side. He odmine caudidly that he

He odmita caudidly that he wonted to lift the centre off the ground quickly to cash hi on odu-catinoal expansion before the re-cession orrived: "Those RMCs which dragged their feet for five years have themselves to blame, in my view if they have been trapped iny view, if they have been trapped by the cut in resources now."

by the cut in resources now." But there were difficulties, too. The college and the polytechuic had each developed o different echos and olmed at different markets. The polytechnic concentrated on lower-level management services auch as work study and organization sub methods, while the college empha-sized short courses and middle man-agement. More fundamentally, the college centre had developed a dis-tinctive quasi-commercial mode of operating which was almost entirely alien to the traditions of the poly-tochale.

oase with which the two

ation confronting him wos well-describad by Philin Leon, who looked back nostalgically to the clossical ero when all knowledge was one, Into this Eden the serpent in tho shape of the professor was intro-duced, and neoding something to profass he invented the "subject", broeking up "knowledge". In tho process.

procesa. Certoinly specialization has be-Certoinly specialization has be-come the rule, and in the natural sclencas, where there is ao much to know, it is probably inevitable. Less instifiable is a kind of phill-ethism, which aces the growth of the aubject within its rigidly defined boundaries, as more import-ant than the understooding of life or truth.

finally fused was due to a number of factors. One was the successful ap-plication of what Mr Littlewood describes as "a very theliherate, classic management exercise" de-signed to liberate the "synergic" energy of the two staffs and over-come apili loyalties. The staffs were shuffled ioto small working groups and set to work planning a new role far die management centre. But the delicate handling of human sensiblyities was probably less significant than an onusual administrative structure which enabled the centre to "plug in" to the polytechnic without socrificing the strong links it had already built up with Mid Essex Technical College, and colleges and employers throughout East Anglin. Although formally linked to the polytechnic's academic board, the onangement centre has an neademic

onanagement contro has an academic board of its own ond a separate "policy committee" which with representatives front local outhori-ties, industry and surroanding col-

ties, industry and surrounding col-lages—acts as a separate governing body for the ARMC. The arrangement gives the centre a degree of autonomy nut matched elsewhere in the polytechnic. Com-bined with its physical isolation, this has helped to ovarcome many of the problems encountered by other RMCs. Management centres generally ottract atudents who are older and more affluent than these. In ordinary polytechnic departolder and more arguent than those. In ordinnry polytechnic depart-ments, and they have to be luxu-riously equipped to ottract high calibre managars to their short courses. The ARMC shere con-vinced that if they had to shore premises with other polytechnic de-presente release would be coupartmenta, relotions would be con-siderably soured.

The staple dict of atudonts at tha

By the line he cane to Cardlif as professor of sociology, socialo-gists had lost most of their noo-Durkheimian feor of psychology, but some still roised their eyebrows at his hospitality to ideas from his-tory objiosonby and social work.

ogy of aocial workors, or the porogy of aocial workors, or the por-aonal servica trend of contemporary aociety, ha moved around his chosen field with a complete indifference to subject demorcation kines. Espying a dark corner, he wasted no alme before lituminating it, irrespective of the auguished pro-tests of whichever group of apecialists night claim to be the custodians of it.

or truth. Professor Holmos treated such harrow scholasticism with disdain. Beginoing his academic career os o psychologist at Keele, he hazaaded operative fluthing betwean teachers his professional status in thot disci-pline by his intarest in cultural aspects of socioty. Professor Holmos treated such Dis unifying tempar led him into this eavily work in stimuloting co-perative fluthing betwean teachers will 'remember those stimulating

in management centre is the diploma in management studies. Most take in management studies. Most take the courses in general management, described by oue member of staff as "a conventional, taughtish sort of course". Students are typically managers in their late 20s and corly 30s who uttend on a port-time day or block-release basis. Many come from big local firms, like the Chelmsford-based GEC Marconl. But while general management

Chelusford-based GEC Marconl. But while general management dovelopment provides the bulk of the centre's work, it has also been highly successful in identifying and oxploiting damand for management expertise in spaciolist areas. The dopartment for innuagement in the public aervices, for axample, has built up an internotional reoutation for its work in higher education for its work in higher education inouogement. It recently carried out consultancy projects on higher education in countries os far apart os Brazil and India, and participated in an important OECD project on the unuagement of higher educa-tion in Europe. The department guess two major diplomas in lecal government and educution manage-ment, and a special short courso for university registrars.

The department of services to hudustry runs a similar mix of basic hidustry runs a similar mix of basic diplomo coursos oud more exotic and specialized short courses. The diplomu programmes focus ou markedug oud manufacturing, and there is a smull postgradunte course in international morketing. The sbort courses are rosidential and bighly intensive. On the four-week course ron lu collaberation with the National Computer Centre, for example, students are expected to knuckle down from plue in tho morning muil ten at night. Staff at the ARMC ore and to renthuse about the centre's own

snrs accms to have penetrated into our clossmoms and social work departments.

The Keele conferences, however, directly to one of Professor Halnios's main achlavoments— tha series of Sociologicel Reviow Mono-grophs. Ha gave up their editor-ship in 1973 but, by theu, he had produced no fewar than 20 volumes, mostly symposia.

The first oumbers consisted of the papers delivered at the interdiscip-inary conferences, but he widoned their scopa to include volumes on : social medicine, casowork, penology, professionalization, masa communicotions, and even Japonese, and Latin-American sociology. Socio-logical Review Monographa repre-sent an impressive monument to the fange of his interests.

contros and activities, but hese represent only a part of its a scial role. The keynote of the tMC strategy was that the new centres would link higher chucotion in the pulytechnics with the management education offered by technical and further education colleges in their further education colleges in their regions. As "centres of excel-lence" they were supposed to approache and coordinate the managenieut education provided by a large number of neighboring institu-

number of neighboring institu-tions. The simple concept raised com-plex difficulties. There was a notiral tendency for management deparements in technical colleges to fear that the creation of mearby RMC's would result in their own work being eclipsed by high status, big brother institutions. It was this fear that animated the establish-ment of a "standing conference of heads of management statics" to assert the rule of the colleges against the new RMCs. The Anglian centre, however, has been able to minimize the problem by adopting a deliberately how pro-file in its dealings with the asso-cioted colleges of East Anglia. Al-though the centre hos its own full-tino regional coordinator, and sap-porta the outside munagement deportmonts when asked to, it is careful not to impose its views on its neighbours. The potential tensions have also been defused by giving the larger neighbours. The potential tensions have also been defused by giving the larger neighbours of ARMC itself. Heals of the cight largest manage-ment departmenta in nearby col-leges are full voting members of tho centre's own academic board and another 14 "osnociated" celleges are close collaborators in the plac-ulng of the cautre's provision. Mr Alan Bondic, head of ARMC's

ulng of the cautre's provision. Mr Alan Bondle, head of ARMC's monagement development depart-ment, choracterizes the policy this yway: "We deplore the phraso 'centra of excallence', Wa like to think of this as a sequent course.

'centra of excallenca'. Wa Jiko to thiuk of this as o regional cousor-tium ef colleges, and that way we have avoided the history of conflict which has faced nony other RMCs. Respect for tha work of the region's technical colleges seems genuine. The ARMC staff point out that management deportments sprend around the region have been able to idantify local needs with extraordinary accuracy. Southend College for example runs a buce expaordinary accuracy. Southend Colloge, for example, runs a hugo course in banking to match the town's decline as o holiday resort and rise ns a commercial and busi-ness nrea. Thurrock College, too, hos bocome a uetloual leoder in port

monagement as a result of its stra-tegic location en the Thanca. The Anglinn Regional Manage-ment Centre is therefore n good ploce to visit if you have prejudicas about management education. I has hod to be an aggressive lnat bighly intensive. On the four-week at course ron lu collaberation with and the second for a morket. But it seema to have continuou nucch to the National Computer Centre, for it seema to have conthinou nucch example, students are expected to that la gooil in management—flair, intelligent and sensitiva appraisal of its ploce in a wider educotional enterprise.

Antor-disciplinary conferences at Wos the set-piece lecture. His European upbringing the wos burn, and later studied, in Hungary wos which have followed, teachers and reflected in bhis liking of his for resonance, and holding, methods of work, or ideology. A fifth column of would be profess.

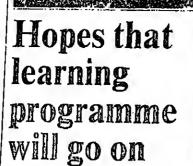
audionce. And he wos very good at it. Ile had the presonce and the elequeuro for it. Students at his flist-yeor sociology lectures always fell that they had not only had their minds enriched, but olso that they had been present at on occasion. Theatre ended her her in a social they had

porhaps, huc inspiring and highly-instructive theatre. Penhops, there was also a por-sonal element to ell this. Professar Halmos was the gulutossential indi-vidualist, who went his own way and sow no reason to believe that it

was the wrong way. Mury who disagreed with him will remember him with admiration and affoction.

Howard Jones

sent an impressive monument to the *The author is projessor of social* fange of his interests. *The author is projessor of social* obliministrotion at University Col-His preferred teaching method lege, Cordiff.



The National Development Pro-graduate in Computer Assisted Learning (NDPCAL) is in its final death throes, bu December 31, 1977, denth throes, the December 31, 1977, after exartly five years of life, in ranishes, having spent £2.6m. What metaphor is appropriate? The sinking ship with rats leaving— are the fair and noble phoenix, monating a funeral pyre of its own creation. While the ship metaphor has much to rommend it and least for the infinite supply of jokes made passible, are would prefer to be associated with the legendary platenix. For NDPCAL recom-mended its own closure; more importantly, the essence of the pro-gramme will, we hope, live no, renewerl and vignoms, By the end of 1977, the major aim of the programme looks like heing achieved—the "institutional-ization" of computer-assister and computer-managed learning in a

Partirn" of computer-assisted and computer-managed learning in a range of education and training environments. With the ending al external familing ("soft" money), three an af every four project insti-tutions that have been directly associated with the programme seem to be set fair to continue, using "hard" money. In the higher education sector, we estimate that 22 out of 27 mone

In the higher education sertor, we estimate that 22 out of 27 pra-ject institutions will survive the fire. Leads, Glasgow and Surrey miversities, for example, have established university-wide cam-computer-assisted learning (CAL) services, which are intercolly funded. The New University of Ulster, Chelsea College and Queen Mary College have established ser-vices on a faculty-wide or college-wide basis as appropriate. The polytechnic sector is also well repre-sented. Leicester and Plymonth polytechnics, for oxample, have put-telpated in inore than one profect, thus ensuring a broad lose of sup-port from more than one tenching port from more than one teaching

and the base of a second

provide the second programme. All second programmes and programme.
provide the level of the control of the c



new development, Over a faur-year period, start-ing in 1978, the DES is making available funds to the Council fur-Educational Technology (CET) in take rm the task of difference. The grant in the first year will be 660,000 (the National Programme's expoundance in the first year will be for a runge of information of the four-year period, the aftervare activities should have become self-sustaining. In the jast, the musclos of four

depariment, In institutionalization is out without its problems, he the press ent economic supreze, any time vation may find itself suddenly butg on friends and short in cash. While, for example, at Leeds Inti-versity, tenared appaintments have been ugreed for Ruger Hortley's computer software, unlike, say, commercially published print

package, The importance of the micropro-

cessor lies not so much in its impact role of adding by eloment of intel

Now mini bubbles, bits and beads Computers have been so consistently oversuld that to be exphoric about their future is to invite disbelief. Yet the fact is that education could be the met is that education could cummunications capability. executive, scientist or teacher can have on his desk a machine than can simuloto an oil well, compute a satellito orbit, mudel the antimual Yet the fact is thot education could be the une area where opplications odvonce os rapidly as developments in computers thenselves. There is an increasing temleney for commercial and scientific users bound as they mostly sro to large systems of terrifying complexity to leg behind bi the application of new technology. Whilst many educu-tionallsts can contemplate with equonimity the prospect of e ter-minsl ou every teacher's desk, many of the more established usors of computers ore upenly wishing for a respite from ever more sourtling

developed and are lu reguler is. Today such educational compa-ing takes about £10 per hour is rata and perlups £5,000 for the te-minal and ussociated computer machinery. In addition, and is in hig addition, educational program take many man-years to dereby. For the future, running cost to not look to be a serious obseth. Already computer power is so cheap that communications costs—the con-uf the telephono cell to the con-tuits typu af call ser based on the unount of data transmitted rather than an the line holding time they uvill fall to one tenth or less a today's rotes. The microprocessor, a hole com-puter on a single thry electronic chip, seems ready to replace every item of purpose-built electronic equipment from the ioner workings of the notion's defence rudar in the homestic woshing muchine. Hits, hytes, bubbles and hends are all subsumed in a compact functional package.

Equipment costs will also fall and lerminals based o

lerminals based oround the main market for domestic television could well be significantly chaoper and more importantly double up as ov-ventional television receivers. The big challenge is to courd tho cost of the teschors courds thun. Educational software remain wory expensive despits better pro-gramming systems, essier to up gramming systems, essier to up and easior to read-which is ver-funportant if programmes are to b published and shared imguages whether through bettor technoles whether through or just great whether through better technolog ur better technolog or just great goodwill material can be wide shared and production costs wide spread is the "oscro" question over the future of the mice technology in education, Ken Knigh

1960s was the decade of bigger and bigger machines. At the beginning of those 10 years one could, say, oddl 1,000 numbers in s second. By the end of the decade a typical com-puter could doal with 100,000 num-bers of a time oddlog them in 1/10th second. That trend hos continued to tho preseur day but it is mioloturizotion that truly characterizes recent de-velopments. Today's £25,000 mini-ginat. The mini computer plugs into the available in composet form. Unwieldy mognetic tape has been replaced by convenient and reliable disca. The whole system is much cheaper, much smaller sod altogether on a more human scale. Yet built-in intelligence (the optersting soft. The nutbor is in the departm of physics at the University Surroy.

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computers ore upenly wishing for a li respite from ever more sourling it technology. In this neried of slow growth out i ecunumic sugnation, it is perhops difficult to appreciate inst how fost charpitets, here developed. The 1960s was the decade of blager and blager machines. At the beginning of those 10 years one could, say

# COMPUTERS COMPUTERS Techniques to bridge a management gap Plug in and The old saying "Yon can't see the word for the trees", is porticularly spt in describing many aspects of management education. The real world, comparers are completely linked with quantitative often langes; in fact same techniques; in fact same techniques to real-life problems. For this reason there is a need. For this reason there is a need to be used effectively without the mechanics of the processes of applying management techniques.

Any management course contoins within its syllabus a number of within its syllabus a number of different topics such as statistics, operational research and computers. Each of these topics supports the requirements of a present or future manager in providing tools for analysis of nanugemont problems. However, while there appears to be an interdisciplinary approach, the each more support relationships between the varying topics are often inadequstely under-

stood. This erticle describes en attemut to bridge the gsp between the topics of computers and quantito-tive techniques in e menagement course at Neuveusale upon Tyne Polytechnic. Our ain, which we appear to have reached, was to have students use computers as a normal problem.solving tool when using problem-solving tool when using quantitative rechniques.

quantitative rechniques. Quantitative techniques in storistice, operational research and in other subjects con be used to solve real-life problems. But solv-lag such problems can be very time-consuming if tackled manually. To be able to use these techniques, students learn the theory and then "neave" it by solving simple "prove" it by solving simple examples. More complex examples are ruled out by time pressure if manual methods are used.

Because the student only uses manual methods for simple prob-lems there is a danger that the connexion may not be made between theory and resl-life prac-tice. Also, due to lack of time, skills aunot be developed through prac-tice in the all-inportant areas of formulation, solutiou, and refine-ment of s quantitative model.

Therefore, the use of computers to speed up the solution process would be extremely advantageous. Yet, in many management courses the subject of date processiog tends

Fomputers, For this reason there is a need to bridge the gap between com-putors, quantitative techniques, and real-life problems in management education. If this could be done, it would provide better courses, im-proved student atorivation, and stoff development. But to satisfy these goals certain facilities were re-pured, as well as a different uproach to computer usage. Because the costs of computer

inproach is computer usage. Because the costs of emputer hardware have been decreasing in real terms for a number of yesrs and the trend is contoning, it is possible to pravhio a coopnier ter-utinol for each studeet quite cheaply. Alsa, many pro-written enonputer opplication programming bassive and the trend to a biain the impression that: (a) The tech-inque is indequate, and (b) It involves untold occdemic drudgery. The lecturer an the other hond abserves that students in general ate not very guoil at arrithmetic; it takes a long time to urrive at the summit of the problem; and abserves that students in general ate not very guoil at arrithmetic; it takes a long time to urrive at the summit of the problem; and when you do get there it turns out to be a massive unticitanux (us far as the sudents are concerned), be-cause they lave rather lost sight of the oligetive in the undergrowth of calculations. As a result we decided to use the computer to aid the learning process. For, if all the urithmetic colculator.

The facilities provided for esch student are first su interactive com-

student are first su interactive com-puter terminal; and second, "user-friendly" application programs which prompt the student through e series of simple stages to enter the data, and present the results in a well-laid-out format. The student may size modify and resolve the problem, thus refining the model. Using these focilities, students can investigate and solve far more com-plex problems than could be solved by manual methods.

The real world differs from this in a moder of ways, not least in the mechanics of the processes of applying management techniques. Here, lang redious arithmetical pra-cesses are involved in arriving at what can only be called "base comps" which in turn are necessary uningers to the meaning of the camp indjuncts to the aveault up the sum

From experience, syndems in tackling, say, exponential summaring tackling, say, experiential smoothing twith moving averages, trend eneffi-cleuts and expected demands plus or minus 2 signa bend to obtain the intpression thut: (a) The tech-nique is inodequine, and (b) It involves unfold codenic drudgery. The lecturer on the other hand abserves that students in general abserves that students in general

As a result we decided to use the computer to uid the learning process. For, if all the urithmetic can be made of the "instant" nature, then the adequacy of the technique can be more accurately ussessed.

Tt has proved possible for stu-deots to use the computer sfter 10 or 15 minutes of instruction to col-t culate the standord deviatiun of a set of figures. The student imme-diately recognises the benefit of drudgery and is motivated to use computers. commiters.

prex problems man could be solved by manual methods. As o result of our modern environ-ment, supported and reinforced by the media, there is both the expec-tatioo and demand thst every man-agement decisioo shell be not only of the "Instant" varlety but also shuuld be inveriably correct, and that the outcome of such micro-

The student can now put into per-spective on an agement operations that were previously difficult to dis-cern, and orderstand the collesive-oess of these operations by gener-uting not just a numerical solution but a policy which is justified by computer print-out.

tions. In addition, students are sul-ving problems in minutes that could scarcely have been considered in the past because of the constraints of time uni/or mathematical ability. In doing so the computer is en-abling them to wideo and deepeo-their understanding of the totality of mageonemic operations.

of management operations. One development which could ensuro that user time con be spent on problem solving would be a reduction in the period spent on tho details of data processing on man-

with the udvent of thre-sharing services and mini and micro-com-puter will be mar future the com-puter will be regarded probably in much the same way as we tuday regard on electric mator: as just a

companeit of other systems. A further step which is envisaged is conthining classroom sessions with the portrayal by videotape of real life probloms and the

R. E. H. Heady

B. H. Pereira

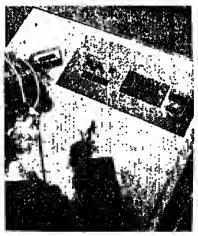
The authors ore both senior lec-turors in the department of odminis-trative and management studies at Newcustle upon Tyne Polytechnic.

difference Taudherg's recently introduced Laugnage Learning Laboratory 159 is one of the new developments

Currently the computer is being in language laboratories which used in this way in flual examina-uwes its existence to microcomputer technology. The laboratory, which has been conceived in chometation with scientisis, reachers null educational

authorities in many centres, uses the camputer to replace o lurgo number of circuit bourds, alaimis ing the possibility of laults. Thus, a great number of functions, which up to the present have been mechanically controlled, are naw carried nut electranically.

For example, if the installmina includes more than one programme, it is possible in place students into ramhim gruups without reference to the seating arrangements in the



Student using Tandberg 189 Lan-guoge Learning Luboratory.

# **DIGITAL MAKES LABWORK EASIER by MAKING** YOUR LAB/WORK HARDER

Oreal savings in rescerch letionalow applications whathe in industry, government or advesilon have been made possible by the advant of miniscom-pulers, over past yests, liow turther development is enabling the miniscomputer to replace several of the functions of other scientific instruments. In the Coretrent of this development is official equipment Corperation with more then 90,000 computer systems in operation, representing s one billion celler husiness—s target recorded on its twontisth enniversary. The company's hear operation as a smell unit composed of three man, with a single product, lead eitices and tarms in the UK. Speaking about the background of the company, israte they had no vision of the company, become.

"Bul we believed then and we still do that com

ettordable and represent good quelity which is our primary goal ", he said. Indeed inhese very testures have been throughout the helimmik of the company end have ied Digital Equipment Corporation to prodece in 1982 the PDP-6, the "world's limit minicomputer ". A 12-bit machine ocsting under 30,000 dollars, II put com-putelionel power in the hende of these who pre-viously oculd not stlord it.

viously oavid not stlord it. Oeveloped into the POP-8, il became the workforse of the selectilio and angineoring community who discovered that miniscomputer syntems ceud do specifie jobs borter and teater then larger systems. Out of this seriles development has emerged e wide renge of computers, one of which is the OECLAB temity of hardware and activate, speci-lically designed to teberstory applications by the Laboratory Dela Products discup within Digited Equipment.

This providee a wide provides a wids spectrum of capabilities for equally wide diversification of laborstory onmants, simed as it is si othemists, physi-p, psychologisis, biologisis and engineers. In

eddition to verying power and performance levele, thena systeme also offer a price range linst enables budget consolous assers to build powerful, yet cost effective eysteme. The OECLAB tamily is built around the power range of the PDP-11 computers which sums from ameli microsomulars to large multilunctional computers. Por each of the OEOLAG nysteme, them is a wide more of powerful PDP-11 peripheral devices-dise systeme, tape systems, printern, alphonumerie and graphic terminals, analog to digitat converters to name buils iew. The smellest members of the tamily, the DECLAB-1/03, are liew cost socialition systems built around a POP-11 microcomputer small enough to be wissled from tab to leb. These systems of the piers easis interprised to Tachnology. This piers is easis interprised of Tachnology is "Whilt-wind", tather of the microcomputer. The heart of the microcomputer is four logic shipe the innover one to the theory of the com-termine theory of the microcomputer. The heart of the microcomputer is the difference of the micro-termine theory of the micro-termine theory of the micro-termine theory of the micro-termine theory of the micro-

mande. The OECLAB-11/03, was Beefgned with the first time user in mind, but II is o complete appealy system with contrait processor, mans storage, a ohotos of iso interisore, graphic of hard copy terminal, real time correting system and program-ming insuesse BAOO and FORTFAN. They ara well suited to singlo user or datioated computor applications, collection time to see og or digital teboratory instruments and partorning or digital teboratory instruments and partorning

Indivity. Bpeaking ebout inelir decision to burchase the OECLAG-11/03 events, Mr. R. Barred, a schler lecturer in mochanical engineering seconded to ine rosesarch projoct, seld that siter drawing up specifications of their needs and looking at the valous possibilities within their budget, limit choics tell on this eystem meinty broause of the low cost of £11,000. "It else resily stome trom the tool theil the imajor computer at the polytechnic is a OECSYSTEM-10 and it is corienity convenient to have a smell one of the sema make ", he seld. "But oven so, we would have clocen the 11/03 for soveral other readom. It comes as a complete peckage, voli can begin programming on the vory day of delivery and within two weeks you can

والمطلقين والمستور المحا

achieve all the necessary programming. This saves lime and money, both extremely valueble in research. It is the very convenient basearse inere ara meny DEC computers in miner places.

tesegrch. It is also very convenient baseuse ihere ara meny DEC computers in mitter places." The DECIA8-11/03 is serving many purposes fa this research project. It is, for example, used os spectral snalyzer and se a basis control for othering data from instruments. It also provides a graphical display on the VDU. Another example of its ospabilities is shown by coupling an enem-ometer—a device for massuring which speed—io the machine, which then produces a graph of the power spectrum of the terbulence. "This is very difficult to do with any other instru-ment as much more complicated ", Mr Bernard weld. "I to an be done much more iselibly when using the DECLAB-11/03 aystem." The computer is also used for teking pressere measurement readings and se a selety device for enything which is sut at range. You can, lot axample, program II to keep o ohook on overloading conditione.

conditions. In the longer tarm, two similar mechines will be used, one for tailgea testing and recentroh, and the other for work in the debool involving jurbo-machinery toeling where it can read dete, as a dejm logger. In this case being the computer means you can conduct your experiment much taster, and this saves encuncy which has been known to felt before the experiment is completed.

The cohool sieo hopes to use the computar's spare cepecity for issching both undergisdusis and gradusie aludents on visious projocie. "Ways or beaching them how to use the loce of large and any bit of them how to use the loce of

eurreni activities end type of equip-y will find in indusity ', Mr Barnard

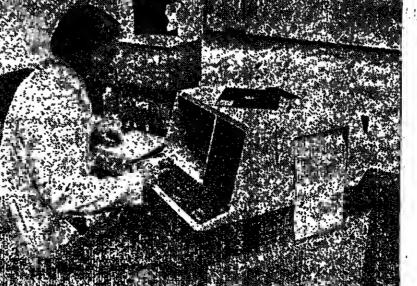
antd. Another different but equally interacting application can be found in the psychology department of the polytechnic, where the DECLAB POP-11/03 is being used as an experimental taboratory for human ex-periments. In particular to study viscal processes, find out how people read, how they make and take decisions.

tind out how people read, how they make end take decisions. But perhaps the insets solventeese which ensure a bonkinued successful luture for the DECLAB-11/03 and other Digits Equipment multicomputate can beel to round in the testimonial of one user. "Wo fosh it is even to be and wo did not have to wanto any time teoring how to oparate it.", he seid. "The mechino takes FDRTHAU and therefore it is quite easy to transfer proprime from the main computer on to B. Diher systems. especially lemity onen, often tand to use their own language. "In addition the machine reploces a large amount of specialist analog oquipment which in very expanded end for the solution." For further thormation on OECLAB systems contact David Well at Digits Equipment Go. Lid., The Horl, Church Street, Webyn, Heris-Weiny, 61/1.

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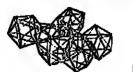
TYPICAL DECLAS CONFIGURATION SHOWING GRAPHICS VOU.

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### Overseas

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Applications ere invited for this post which involves reeponsibility for leadership in Science Educetion within the School of Applied Science. In particuler the appointee will be expected to co-ordinate en innovative Mester's degree in Science Education, to conduct postgraduate courses in this area with en emphasis on self directed learning and independent study, to be involved in verious research end development projects, end to help establish e Science Teachers' Centre to assist secondary science teachers to use the resources at WAIT.

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Tenure: Appointment may be eithar Tenured or Non Tanurad for a petiod up to three

Conditions Includo: (Tenured) Annual. Long Service and Study Lsave. A choice of Superennuation is evelopile if required including a schsare similar to FSSU. Fates for female and the second se ance tor removal expenses and temporary accommodation are payable femily plus assle to sppointees. [Non Tennired) Four weeks' ennual leave. Fares for lanning plus some assistance for removal expenses are peyable to appointees, licellons :

Applications: Detailed applications including a curricolum vitae and the manage and oddresses of three referees should be submitted not later than 10th December, 1977 to the Migration Llaison Ottleer, Western Australia House, 115 Strand, Lontinu WC2R 0AJ, England, A When applying please quote poeition and roference quotbsr HE5056.

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Western Australian Instituto of Technology



The Institute is a major tertiary institution providing degree and diploma sludies al both undergraduate and graduate levels for over 11,000 g dents. Programs may be taken on a full-time, part-time or external stut

### School of Applied Science HEAD OF DEPARTMENT (Rof. No. 055)

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The Department is one of live Departments in the School of Applin Science. It has a full time academic staff of 16, and approximately ar students. At present programs offered include Bachelor of Applis Science, Graduate Diploma in Mathematics and Graduate Diploma in

The courses are essentielly of an applied nature. In addition to a contract the courses are essentielly of an applied nature. of basic mathematics and analysis, students may elect to specialise in applied stalistics, computing, numerical analysis or operationa research The department is also heavily involved in service teaching for other (

The Head of Depertment is expected to provide effective leadership, by educationel and professional, to co-ordinate ecademic and sdministre live operations and to further the departments involvement in industrie

Qualifications : Post Graduate qualifications and professional or ladostrial experienend/or tertiery tenching are sesential. Sslery: Esig.16,375 [Salsriea quoled at October 25th rate of exchange Esig.0.630 a

Tenure: Appointment may be either Tenurell or Non Tanuted lor a period up to fim

years. Conditions include: |Tenureri) Annual, Long Service and Study Leeve. A choice of Superanouation is available it toguired including a scheme similar to FSSU. Fare for lamily plus assistance for romoval expenses and temporary necommodation are payer to oppointee. [Non Tenured] Four weeks annual teres. Fares for lamily plus sets Applications :

Applications: Octailed applications including a curriculum vitua and the names and oddresses of three releases should be submitted and later than 10th Dacembar 1077 to the Migram Lielson Ollicer, Western Australia House. 115 Struct, London WC2R OAJ, England & brochuro containing butther information day be obtained from the above oddress. When poolying places quote position and betangues much product reads HSS. When applying please quote position and telorance munibor plus modia code HES.

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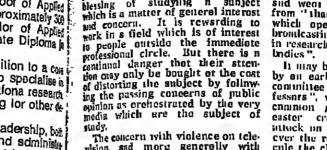
CAPILFIELO INSTITUTE OF TECHNOLOGY

COMMUNICATION STUDIES

**Principal Lecturer** 

or Senior Lecturer

(Roloranco 77/80)



a setting the agendo for mass comnunication research.

Aledia researchers also used access to the subject of their study.

make the point. This type of distortion through funding and sccess is one which media research shares with other fields in social science. It has also

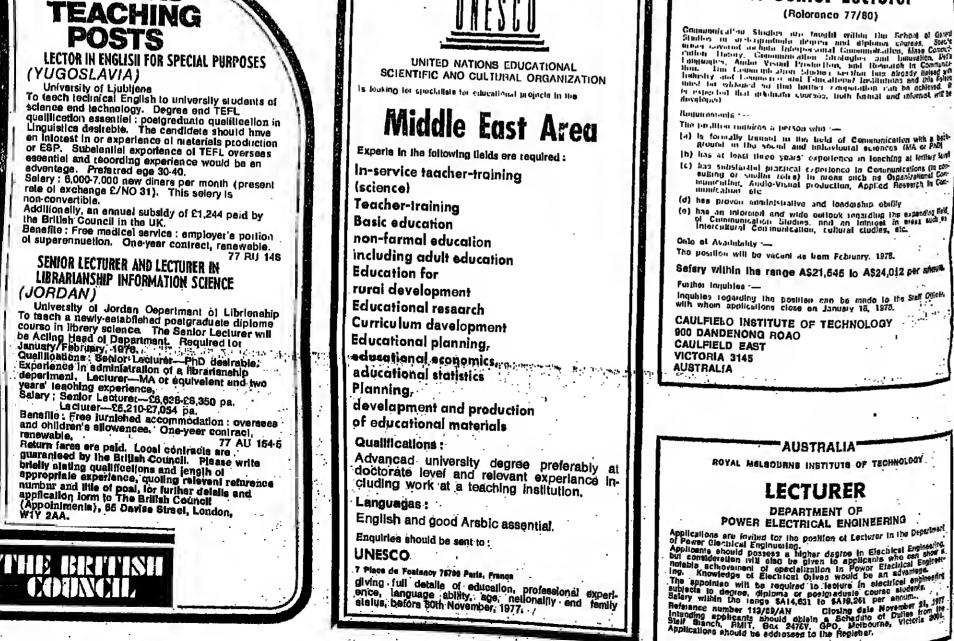
appear more extensive and securely established than it is.

tc) has substantial plantical coperiones in Communications (in con subing or smaller roles) in more such as Oppanizations (in con intercentions, Andio-Visual production, Applied Research in Con munications size (0) has an informed and wine ownows anguiding the superdist first of Chimmunicalical Studies, null an informed in even such an inforcultural Communication, cultural cludies, sic-

"AUSTRALIA" ROYAL MELSOURNE INSTITUTE OF TECHNOLOGY

### LECTURER DEPARTMENT OF

POWER ELECTRICAL ENGINEERING POWER ELECTRICAL ENGINEERING Applications are invited for the position of Lecturer in the Department of Power Clecifical Engineering. Applications should possess a higher degree in Electical Engineering but consideration will olso be given to applicable who can give a notable achievament of opecialization in Power Electical Engineering ing. Knowledge of Electical Olives would be an advantage. The appoints will be required to teoture in stactical engineering subjects to degree, diploma or posignature coress advantage. Reference number 113/89/AN Closing date November 21, 307 Intending applicants should obtein a Ecception of Dulies from in Staff Blanch, Ridit, Box 2476V, GPO, Melbourne, Victoria 2001. Applications should be eddrosees to the Register.



 THE TIMES INCHER EDUCATION SUPPLEMENT 11.11.77

philip Elliott describes the environment that faces the university-based media research worker

# Slings and arrows on both sides of the screen

Media researchers enjoy the mixed

opinion as orchestrated by the very media which are the subject of The concern with violence on tclevision, and more generally with the harmful cffeets of broadcasting, as had the most obvious influence

in liself, the level of ettention to academic subjects matters Bute. But when research is one factor contributing to the elimate of opinion in which policy is formed, modily researchers cannot formed, modili researchers cannot shrug off their responsibilities so easily. And public concern, reflected in the agenda for policy-making, may also bifluence the funding of research and so the development of the field.

and sgain some aspects are more sccessible than others. A simple comparison of the quentity of research inthe biradcasting output and sudiences compared with the shottage of rescurch into media organizadons and occupations, and the history, politics and economics of the nicdia system, will scrve to

shared in the recent general trend towards putting the powerful, as well as the powerless, on the agondo

for study. Indeed medio research did not really develop in this commy until the 1960s, the decude in which this comments started to get several process started to get underway. It would be unaccessory to omphasize these recent origins wers it not that the general often-tion given to the field makes it

established it an it is. At present research contros at the universities of Lelcester, Leede and Birminghom are working on different aspects of the field with their own distinctive approaches. Only the first, however, can be sedd to be sufficiently supported by its Parent institution to provide tho necessary base for a continuing pro-Stamme of research. Most research still depends on Southerm project finance, such as that which has sustained the Centra for Television Research at Leeds, or on postgraduete work, the mein-Nay of the Centre for Contem-porary Cultural Studies et Birmiag-ham. Another centre is lo the pro-

Media rescarchers enjoy the mixed blessing of studying n subject which is a matter of general interest and concern. It is rewarding to work in s field which is of interest in people outside the immediate in people outside the there is n that his report was not research

It may be that Lord Annan, sting by an earber reference to his own committee as a " pesifience of professors", was simply seeking some common ground with his broadeaster critics by mounting su autock on a control enemy. Whatwhere the reason he went on to rid-cule the claim that research should play a part in public accountability. Nevertheless, ns was argued above, a media researcher faced with public

concern and the formation of public policy, cannot presend that his work, particularly his choice of subject and approach, has no relevance is the public debate. The public service responsibilities bid on the British broadcasting

nuthorities allows and requires an informed debate which is more than a shuple urchestration of support and protest inovements. Medio re-searchers connot uvoid being in-volved in this debato.

Furthermore they have a respon-shilling to provide information and perspectives—n responsibility which most British neademics recognize. judging by their participation in public discussion before and after

'A shadowy guerrilla force on the fringes. of broadcasting

Lord Annan

That particular remark was mode as a reply to the demaed for e complete erchive of all broedcast output. The technicel problems in-volved in such a project, not to mention its cost, rule it out os a sorious contander. But thet does not invalideto the case for a selec-tive iong-term archive, such as thet started et the British Film Institute, or even for an extensive short-term archive with ready eccess et reason-able cost. able cost,

At present eccess to output elreedy broedcest is meinly through the broadcesting organizations them-seives. It is hepfinezard in the case of the hudependent companies end prohibitively expensive in the case of the BBC.

When this year by tho BBC put he machine of schoiser in the field own by the Annea to more the schoiser in the field committee, at least by default, that is the number of schoiser in the field committee, at least by default, that is the future of the schoise in the schoiser is the schoiser is schoiser in the schoiser is schoise



a research trust first saw the light of day in the press as a trust to sponsor further work on the effects of violence on television.

The issues of violence and effects

The issues of violence and effects hardly featured in the Karz report, which haspired the idea of a trust. Current BBC planning, under the direction of Keoneth Lamb, special odviser on broadcastoig research, is much closer to the letter of that report, and indeed to the spirit in which Kutz was commissioned to take on the work in the first place. take on the work in the first place. Katz's brief was to review tho research interests of broulcasters and academics and to suggest ways in which they might work ingether for their minutal benefit. Kenneth Lamb describes his job in much the same terms, as providing a fromework in which broadcasters

and researchers will have the funds, facilities and manual coofidence to cooperate. The first phase of this operation has been to commission research on some of the topics, identified by Katz os being of direct relevance tu hroodcuster». The second is to involve others outside the BBC in the planning and organization of e trust to support research on a wider range of topics.

These would include an only evaluative and unlicy research of direct relevance to the brosdcester's Anuan. And this is not to say that they have any exclusive right to decide the outcome, the apectre which secured to haunt Lord Annen when he spoke of "this power of the hunds of e single rescerch team". A shallowy querrilly

and factures. But a strong trust, would not necessarily strengthen British medie research. A trust, like foundations, may be expected to fund specific projects. This ossume that the departments and iostitutes already exist with research staff ready to take on the work.

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# How pure research can be training for industry J. C. Polkinghorne defends

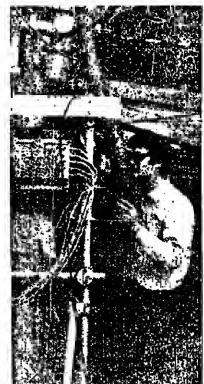
the commercial relevance of postgraduate rescarch even in 'academic' fields

One of the research council's most Important activities is the support of prograduate training. In October, for example, the Science Research Council provided grants to enable about 3,600 gradu-atos to start postgraduate work. Of these 2,300 ure ombarking on the three-year course of research train-ing for the PhD.

A necessary qualification is first-rlass or goud second-cluss honours degree and this intake therefore represents a substantial share of the highest academic talent of the year's grudnates. In fraction will be able to spend their life in on academic career. The great majority will, sooner or later, hove to work in the world outside higher education.

It is legitimate to osk how far the public money spent on providing this training can be expected to bear full in people so that they will bo able to taake no columned contribu-tion to the life of the notion.

I would wish to start a defence of this expenditure with a firm assor-tion of the value of the experience of doing research. Wille it is pos-



Nuclear physics : " just the atmothere nosigraduates will meet if inter they join development teams in ludustry

the nroos where employment choices and natoral need dictate that their long-term chreers will have to be found. If many of the the oblest graduotes are not given this chance to explore their interests in these early years, they will forsake science or engineering for the greater immediato financial rewards of executive and administrative carcers. Mnuy postgreduates will obtain

their research experience in fields unt immediately recognizable ss of industrial related recognizable ss of industrial relations. But paraloxi-cally some of the most austerely neadenic fields, such as astronomy and nuclear and particlo physics, in fact provide experionce that is of the greatest value for those who will eventually go into industry.

Kaiz celled critical research on output and liputs and line development of the value of the expariance of doing research. Will e it is presentation of the value of the expariance of doing research. Will e it is presentation is concerning the such research should be in the value of the value of the expariance of doing research. Will e it is presentation is concerning the such research should be in the value of the value of

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HIGHER FDUCATION SUPPLEMENT New Prinning House Square, London WCTX 8EZ, Telephone 01-837 1234

# The international connexion

After foreign students, foreign academics? A year ago tuition fecs were increased substantially with the harely ratecaled intention of reducing the growth in the number of students from oversets. Now oreign ocademics who want to take up posts at universities and colleges in this country-even, it seems, on a temporary basis-are finding ir increasingly difficult to obtain official permission to work in Britain. Those with harid pulitical imagi-

nations will probably ennnect these two policies and see hold us the reflection at a discreel and afficial level of the new taste for zeno-phobla which is expressed at the level of the gutter in the crude politics of the National Front. But this is to cunfuse effect with cause. Austerity not xenophobia is the root cause. Thildon fees were raised to reduce the direct cust of higher secure and to restrict what secured a too open-coded invitation to foreign students to come and study in Britain.

Similarly fareign acodemics are finding it mare difficult to get work permits because memployment re-mains high and the Government feels alliged to alopt a restrictive overall policy to the granting of work permiss. Both groups are being superied not because they are forcigners but because they are marginal groups in terms of puliti-

Two arguments can be advanced It o arguments can be advanced to justify a tougher policy on the employment of foreign academics. First, it can be argued that their numbor and influenca is so great that they are importing alien values into untive ocademic life and so distorting the lost methods incluo distorting the host netlou's intelb discorning the nost seriou's inter-octual culture. This argument may be persunsive when applied to the developing notions of the Third developing nonons of the Third World. It may even have come force when applied ro a post-dovolntion Scotland. But to sug-gost thet the presence of foreign academics in British universitiev and colleges under present could and colleges under present condi-tions 4a anything but beneficial is nonsense,

Secondly, it can be argued that foreign acedemics are occupying jobs that could be lifted by Bullish

than in the late 1960s. But th number of foreign neademics is not sufficiently large to damage their sufficiently large to damage their a employment prospects materially. Even if this did imppen, would it necessarily be harmful if bright young gradaates did not fjud it so i easy to be reabsorbed into the acodemic caste and instead lind th look elsewhere—perhaps to indus-tury? ury i Sn neither argument in favour of

Sn neither argument in favour pf restriction really stands up, in contrast the arguments in favour of as liberal a policy as possible inwards the employment of foreign academics scent unussailable. If a "balmee of partneaus " in acodemic for an puwer was drawn up, it would certaiply show blat Britain's "Cx-ports "far exceeded her "impurts".
If Britain uppears to ndopt, how erer accidently, in more restrictive policy towards the employment of foreign academics, it is to sail is a cademic is also intaism may be less velcoming to matse infine the standards of each of the standards of the standard

Bowerer, the most important fusification for a liberal policy is that the international character of universities as academic institutions iniversities as academic institutions depends to a considerable extent of free trade in those who teach and research in them, fust as it dues on free trade in their publi-cathons. Of course, h is all us easy to make this sound like a back-ueyed clické that is repeated pac-rot-fashion, or un article uf faith that cannot be even mildly ques-tlaned without unrowking cries af " hereite" ar " phillistine". The international dimension of a univer-sity's work should be subject to the same scrutiny as uny other. the same scruring as uny other. the same scrucing as my other. Yet it canains an essential diam-sion. Without it Britsch blaker education would be improversided. Science, of caurse, is ulready inter-antimulized, although surprisingly its applications are sometimes still caught in a deep national gronve. The immanities, and the sucht sci-ences to a lesser extent, depend much mare an the native intellec-tual traditions that have muchiled these disciplines. But this mukes international councering the not less internations that have numbled these disciplines. But this mukes international councering the not less international councering the ownreness of other intellectual traditions and even of different per-

Sir,-We wish to express our con-cern alout some of the recent pro-pusals in postgraduate training to be considered by the engineering buard of the Science Research Coun-cil (THES, October 21). While proprecising the need for satisfie-tury industrial training fur both gendantes and postgraduates and fur close links between the universities and industry, it does seen that if realized it is more appropriate for training it is more appropriate for consideration by the Department of industry and/or the training tur industry and/or the ternining bards thun the SRC's engineer-ing bound feh in the consideration and recomprise industry industrial training ut the second density industrial for the second for consideration by the Department of industry and/or the ternining bards thun the SRC's engineer-ing bound feh in the constraint with charles are well supported for training in the SRC's engineer-ing bound feh in the constraint tern British students on a course deter-tion in the SRC's engineer-ing bound feh in the constraint adhangh it amended by Braish stu-ding hour and research in the wells are well supported. All and a scholarly statistic and the second the training the the methy of the terning bounds thun the SRC's engineer-ing bound feh in the constraint tern British students on a course deter-tion? If courses are well support is first in English, stu-dents, the withing well the anended by Braish stu-dents, the withing well the anended by Braish stu-dents, the withing well for the terning of the state of the sublet age the state withing well for the state of the state of the sublet age the state withing well for the terning of the state of the sublet age the state withing well for the terning will for the terning will for the terning of the sublet age the state withing well for the terning will for the terror terning will for the terni

the standards of education and research in the universities", fet us seek to promote suisfac-tory industrial training while retaining the highest standards of education and schularship upon which training programmes can be built with rouffdence. The need for basic engineering research in universities and the par-ticipation in h of research students is in no way diminished by the pre-

is in no way diminished by the present training problems faced by a hard pressed industry. Indeed, we haru experienced n rigorous demand frum industry for our pustgraduate students la recent years,

graduate students in recent years. Many areas of engineering re-search require a sustained, general-ized approach which is hest secured through SRC familing. Research in engineering is no less rilat than in the sciences and it would be un-productive to dismontle the numer-ous examples of collisionation he-tween engineers and scientists on technologically based projects. The modesn SRC familing for basic engineering research and the edu-cation of postgraduate students

### Sandi medleine

Sir,---In your interesting special Sir, -- f nm dismuyed to find that

leagues and I in the Laverpool School of Tropical Medicine have been stressing the sevious liealth hazards that are indetent in our rapidly increasing volume of inter-national air traffic. The Hal pre-sones one of this biggest hazards in this, respect and, of course, travel is not by ony means limited to air travel in this particular period. It is reassuring to sea that the responsible authorities in the college of medipino and allied sciences et thus, Kiog Abdul Azic University aro preving a leading role in promoting diseases which could ba such a Arable but to all the countries from the he participants of the Haj trevel each year. Yours. Taithily, W. PETERS, Dean,

# LETTERS TO THE EDITOR

# Postgraduate engineering

Throughout our careers it has been common experience that a threeyear degree course cannot pro-threeyear degree course cannot pro-

with the needs of industry must furn the energy of the size of the furn the curve similar of the size of the of the size of the size of the size of the haps the need should be given greater emphasis than the active demunds from industry in times of hardship.

We have experienced greater We made experiencen areaser interess in, and more urgent requests for recruits from, our MSc courses by British industry in recent times than at any other period. If this experience is typical it moves that industry promuting t appears that industry recognizes the merits of our postgraduate the courses and students, erea though it faces service difficulties in secunding staff in the present

economic climate. Finally, we would draw attention BARHARA HARDY, RICHARD HOGGART, KATHERINE WORTH in the trend, strongly encouraged by SRC in recent times, of provid-Members of the Athlese ing lerure courses as part of management hourd and non the second research degree schemes. Components of management hourd and non the fourth of the schemes of English in the schemes of the distinguish of the distinguishes and it is solved for these courses to be distinguished for these courses to be distinguished as a scheme to the distinguishes a scheme to the di he dismunted as a wholly fractional hyperminet of SRC moving further **Titmuss originality** into industrial training. Yours frithfully, D. DOWSON, Sir,-Harlug written the

Professor of engineering,

B. N. POLE, Ibail of mechanical engineering, D. HRADLEY,

Reader in mechanical engineering Leeds University.

### Cardiff appointments

a regularity. As it happened, for regularity. As it happened, for a fortoight loter. I want to set on record than Principal Bevon's be-newiour and etilinde throughout a lengthy period of over two moints, ilustified in being extremely ennoyed with someone who it, was uttorly beyond reproach. And there was no secret diplomacy. Maid there was no secret diplomacy. And there was no secret diplomacy. Maid there was no secret diplomacy. Maid there was no secret diplomacy. Maid there was no secret diplomacy. So offers or commitments. I feit thet upie unusuel degrees of care to irry of the dopartmout and the univer-vours sing.

the Haj or the dopartment and the univer-sity. Yours sheerely. P. C. BAYLEY. Master, Collingwood College. South Road, Durham. Leucris for publication should and hy: Tuesslap morning at the jet They should be as short as possible and the editor reserves the right and the editor reserves the right

which the past few years we have a real compussion for successive within the past tew years we have a teal compassion for successive lost a number of entineent historians of the same generation; among twomen struggling to make their them the medievalist V. H. Gal-brahl, who died last November not far short of his eighty-seventh birth-day, and the Elizabethan historian J. E. Nedle, who died just over a when Jobs were few and the pros-transformed a compassion of the second and the pros-J. E. Neale, who dien just over a when jous were ten and the pais-yeat earlier when he was nearly pects grey. 35. They were utterly different in mind, he recalled the effects of his temperament, hm friends nyer

As you abserved in your come leading article (They ber 14)), this is emphating the time for universides ar quish their duty to scholarly They were interiv different in temperament, but friends over pany years oud for a time en-leggeds. I could myself fortunato that in my ynunger duys I passed under their influence. Like all great teachers they raught hy econologither than uncent theory. cution. That view was taken vnention of the university of nt its meeting on October : unssive rote of confide

the press.

Yours sincerely,

Academy memoir of Rich-

article is in some ways mis-about Titansy's thought p (THES, November 4). He wa

of the relatively few ruly rate minds in the social sciences of past all years and it is unform

when commountains freek people's ideas in asple,

cut or amend them if necessary

For the distinguishing git of a

In the discussions (bat here ted in the enlined faculties and versity boards there has been spread dismay at the thought in some quarters the min some quarters the min some We trust that the outer these discussings will be used time by the university of the le-caut function of the Athlenen of nudies. But it does seen a fit ereasion both to acknowledge a debt and to recurd the impact which in the scholarly community

theology of the university. But in medieval political ond administrative history he wes e master, both severe and adventur-bus, deeply femilisr with the sources that the literoture, controversial sometimes, always with e skilful infinary with the evidence. His hist publication wes on Domesday Book, that great Anglo-Norman sur-ty of England undertaken shortly after the Conquesr, which appeared lowards the end of a very long life. Though not universally eccepted, the book would have done great will be remembered for this and lor his valuable editions of mediaval purces. But he also wrote coocles. Wartes. But he also wrote coocise, words. But he also wrote coocise, howed surveys of the public bords which remain invaluable, had introductions for the greduate maint and indeed for anyone scck-buse, build nee into that great store-

He sometimes seemed to take e mecial pleasure in stamping on the wins of tender fect. Yet so greet Yas hie respect for this integrity es a scholar and his inspiretion as a techer that these episodes never wed in the way of his edvence-hent from e fellowskip et Balliol teacher and wed in the way hent from e fellowsimp burgh, to the directorship of the burgh, to the directorship of the issitute of Historical Research in random, end finally, in 1947, to the in Modern History the spent London, end finally, in 1947, to ibo Actius Chair in Modern History et Oxford, where indeed he spent tha test of his life, including the years

after his retirement in 1957. But before all this academic advancement, he had served for aver years as on assistant keeper in the Public Record Office, and think that he would hero said

the what he lessit there mede be greatest impact on his develop-ment as a historian.

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 The committee was told to be strate of a second properties of the second propertie system in univarsities are small

emphasized thronghout that poly-teahnics should "concentrate lhelp research efforts on applied prob-lems of economic and social rale-vance." In this context, it defines applied with industry, commerce or contral or local govornment. Polytechnics will recoive special help for their efforts in this direc-tion. Any output creater proposais from polytechnics will coultinue to sink or swim eccording to their merits, in open compelition with lines from universities. Polytechnics had a success rate of 30 per cent in from uoiversities. Polytechnics were allocated 16 per cent of the ve-seercli studentships they sought; universities got 39 per cent. But the level of epplications from polytechnics from polytechnics were allocated of epplications from polytechnics are unlikely to seercli studentships they sought; universities got 39 per cent. But the level of epplications from polytechnics from polytechnics are unlikely to seercli studentships they sought; universities got 39 per cent. But the level of epplications from polytechnics from polytechnics from polytechnics are unlikely to seercli studentships they sought; universities and specific the research seerch and the polytechnics are unlikely to seercli studentships they sought; universities and approver the polytechnics are unlikely to seercli studentships they sought; universities and the polytechnics are unlikely to seercli studentships they sought; universities and approver the polytechnics are unlikely to seercli studentships they sought; universities and approver the polytechnics are unlikely to approver the polytechnics are unlikely to seercli studentships they sought; universities and approver the polytechnic are approver the polytechnic are approver the polytechnic are approver. The polytechnics are unlikely to shift resont the polytechnic are approver to the polytechnic are approver. The polytechnic are approve allocated 16 per cent of the vo-seerch studentships they sought; universities got 39 per cent. But the level of upplications from polytech.

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Inel Hurstfield discusses history's lebt to V. H. Galbraith and J. E. Neale

# Athlone Press Two inspiring masters of the historian's craft

great teachers they raught by example rather than precept, though example range than procept, flough at the same time they each had clear priociples about heir craft to whith they remained faidiful proughout their lires. In the course of this orticle I cannot—and do not intend to—try to assess definitively the contri-bution which each made to bis fleid of nucles. But it does soom a fit

these men minde upon my genera-tion of historians and university teschers. Vivian Galbraith, educated nt Highgate School, London, ond nt the Universities of Munchester ond Oxford, was always an exciting man

Oxford, was always an exciting man to be with, not least because of the fascinating paradoxes in his res-ponses which sometimes bewildered bls listeners but niways left them refreshed and stimulated. Ha was, on the one limit, the tcholar's scholar, who wrote the host erudite articles for the epec-laist prerisioner—he once inid me that the belief that ynu enn present tha friels of your research to tho general public was an illusion which had diverted too many historians from their calling. Yet he could, when in the mood and especially when addressing an undergraduate oudicuce, hove linem

and especially when addressing an undergraduate oudicuce, howe lhem convulsed with langhter with his assertions and ospersions on ony subject. He recalled with delight the oreasion when same irrespons-ble observation of his of an Edim-burgh lecture provoked letters of protest from six professors of theology of the university. But in medical political and

acquired too, from his own years as a researcher when the days

... The urge inwards 'writing buoks' faded out before the effort to understand and relive the remote past directly as these men had known it... The sendmentalism that smears nearly all medieral history finally dropped away, and even reli-gious listory was no longer a ran-ished picture of romance seen through golile vindows. I no longer saw the thicteench century as 'the age of heroism', or the fourteenth as 'the age of chivalry', and if J inst a lot i think t gained more.

This passage was written nearly 30 year's ego, and today we no longer sea the medieral world through rose-timed spectacles, if in fact wo ever did. But the "senti-mentalism " that Galbraith despised has in some measure survived in a good deal that is written about the Elizabethan period; and we shall always need men like Cal-braith to remind us that in study and writing of history the original document can never yield its pri-nuccy to slipshod scholarship and imaginotive prose. Again, to quote his own pungent

anguage :

Snoncr or later the historical stu-dent who means business must turn to the primary sources in their origi-nal form. This is an unpopular doc-trine for it is us much us to say that, one cannot study history with one's feet on the mantelpiere.

Yet Galbraith combined this belief with mother deeply held con-viction which must at first sight seem controdictory. The ucademic scholar's dominunt function was to teech by the living active processes of becures and putorials. He suce of lectures and unterlais. Ile once said in a brondenst discussion that sold in a broadcrist discussion that librarles and muscums were essen-tielly mortuorles which could only be brought to life hy the teocher. And here he added ono noroo paradox. The tenchor, ha said, should engage in specialist rescarch but (end ogain I quote his own picturesque languogal he should not sit " crowing on his own little dung-bill" but should be able " to cover anyching from Beowulf to Virgiole Woolf." Galbroith was right in posing his chellenge that eradition, however skilful and dedicuted, was not



J. E. Nenic (1890-1975]

enough. The past must nome alive, expanding to go not working at their to teacher and pupil alike. History research into their eighties with

to continuous process. It neither on a continuous process. It neither ends with Magna Carta or the foce of feudalism, nor begins with the Batte of Buswarth. The men of the sixteenth century foced problems which we hare not yet resolved: In how much liberty was the individual entitled? What are the legitimate—and the illegiti-mate—demands of the sixte? How is public opinion maile? Con there of the nation in the larger com-munity? An historian commut pro-vide his (or her) students with the nuswers—nor should he. But even though he is dealing widt his own specialist field, he mey muck the questions. vide his (or her) students with the nuswers-mor should he. But even though he is dealing widt his own specialist field, he mey make them increasingly aware of the questions. The problem which fuced Gal-braith in one context faced J. E.

Neale in mother. And the story of how he deall with it has always fascinnted mc.

cinned mc. I lirst met Neale on the day that I begen work as an undergroduato at University College, London, in 1931, I ottended his icclures; he examined ond commented upon the essays of my opprenticeship; and when I got my BA he gave me the apportunity of emburking on Eliza-liethaut research under his super-vision. vision.

When I left Loudnu to take up my ecedemic post I saw less of him, but, oo my return, there developed nn even closar relationship which involved, in my case, n merging of pupil, colleogue and friend. During the last 30 years of his lifa, ioclud-ing the two decades of his return.

He never had been a member of either of the older universities; nul he never understond, or tried to understand, the value judgments which prevailed there in bis earlier dance the universities universities days. He was marvellous in converagys, ne was marcenous in conver-sation, but it was of a different order; nud though on excollent judge of men, he was ant interested in discussing personalities.

### Role of the specialist

But, like Golbraith, he had to foce the problom of what is the role of the specialist in relation to the longer perspectives of history, and to the interests of the general render. And their answers present n controst.

Galbrahlt had said that the spe-cloitst writes for the scholar, and his outeriol is inaccessible to the wider public: but his lectures could range orer an extensive field of his-torical studies. Neala believed that the specialist shoud toech only his specialist field—although the uca-demic studion did in fact some-times oblige him to toko courses in other poriods. But he olso bolloved passionately that the schalar could end should make the finits of his scholarship aveilable to the general reading public. His autremely suc-cessful blogrophy, Elizabeth I. which eppeared in 1934, wos the important test case for his faith and doctrina. This was the problem: cauld the Gnibralih had said that the spe-

perts, there was again almost onwersal acclaim.

But some reviewers, although wormly praising the book, raised two earching questions: one about its presentation, the other about its emphasis. The first charconed the absence of footnotes. Neale's answer to this criticism was that in 1934 there was a very real harrier between the general public and what he called "the writings of academics ".

catemics", Formores, to use his own word-'would have killed the lay public' Whether he was right in this judg-Whether he was right in this jurg-ment, whether he was in part per-suaded to adopt it by his publisher, Jonathan Cape, we shall never brow. Cape may abready have fore-seep that the book would became a choice of the Brok Society, which in the PD30s was the accolade of the interary would; and he may have fold that the scholarly apparants would diminish its prospects.

Ncale's learned articles, hefore and after the appearance of hingraphy, were always admirably documented, as were his three major volumes on the Elizabethan par-liaments which appeared after the hautents which appeared after the war, the only exception being his lindle book, The Age of Catherine de Medici, which was not estay in Interpretation, ont research. Neale himself helleres that in the decades after his hiography a revolution in the public tasto find taken place. Readers not only accepted the notion that the historian should give bis reforences empt of them well. his references; some of them welcoured it.

The second criticism was more fundamental. In refeeting Stra-cbey's evaluation of Elizaberh as a highly strung, passionate, frastra-ted-sometimes ripulictive-woman, and the earlier and widely necepted view nl J. A. Fraude that she could behare cometimes like an imprin-cipieil termagent, had Neale moved and fur in the opposite direction ?

ino for in the opposite direction? Had he judged her by different standards from those be applied to the realpolitik of the other Renals-sance innnarchs; ond had he over-rated her as a stotesmap and indeed made her sonveihing of o goddess? "The English heroine becomes too much of a Foerie Queene", wroto one reviewer. "Elizabeth coates close in a new apotheosis", wrote mother. Du a differen level h was widely

mother. The a different level h was widely said, rery much to Neule's non-se-ment, duat in the process of writing his bingraphy he hod fallen in luvo with the queen. Long afterwards he got a letter from an American schoolgivit who told him that as sho was doing her "project" an him as a biogrowher could he pleasa tell her whether it was true that he fallen in lovo with the queen or use there some other explanation? Where would histori-ans he without wastenoper haskets? una lie without wastepoper huskets? uns he without wastenoper hnskets? Nucle was already engaged in dealing with the problem uf Elizabeth's statesmanship, the results of which appeared in his famous volumes on Elizabeth 1 and her Parliaments. Here ha traced, whore ir wes practicable, olmosr a day-to-day occount of her relations with the House of Commons, and from his studies there courges n skilful and experienced womao, with a politicel sense of contempo-rary realities which was more halanced and shrewit than that of the orators who opposed her.

end should make the fruits of his scholarship aveilable to the general rending public. His autremedy suc-cessful biogrophy, Elizabeth I. which epheared in 1934, wos tha important test case for his faith and docrina. This wes the problem: cnuld the bistorian cumbine the exacting standarde poaed by the original standards of writing good prose? In 1928, Lytott Strachey bad pub-isis trachay's books were provocative, well written, scentical-indeen cynicel-abour the eitters he por-traved and he also used, with the orators who opposed her.

well written, scenticnl-indeed cynicel-abour the eitters he por-irayed and he also used, with startling effects, some of the psychoanolytical insights which bio-grophers ivere juat. beginning to ebsorb from the writings of Freud. Though Neole had contempt fur-tite flood of Strechey's imitators who soon moved in on a growth industry, in the case of Strachey inneelf he declered himself "ou admircr os well as a critic nf him work". In assance he asked him-aelf: If the literary blographer could achieve what Strechey hed nccomplished, could not the treined historian writa good literence? Neal's folth in the genuine lits-toricel interest of tha reading pub-lic was magnificently confirmed. His biogrophy of Elizobath I becama a best sellar ovarnight. And when the learned fournals in due course published the reviews of the as-

published the reviews of the ax- tory at University College London.



V. H. Golbrolth (1889-1976)

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# A tireless social reformer

BOOKS

William Beveridge t A Blography by José Herrfs Clarendon Press : Oxford University Press, £9.50

ISBN 0 19 822459 1

In her final chaptee, le which alle draws together the threads of this substantial but engrossing study. Dr Herris places Beveridge os "the last of the great line of 'ell-round' sucial reformers who have played e significant part in moulding the institutions of Britain over the past two hundred years", and compares him to Chadwick in particular, in both temperament and approach. It is perhaps a measure of the greater s perhaps a measure of the greater Is perhaps a measure of the greater attention now given to social policy that Cludwick and ther other nine-teenth-century plonear, Simon, have received full biographical treatment received full biographical treatment only in our own time, whereas Beveridge is here concomnotated only 14 years after his death. Yet one may doubt whether without the famous report of 1942, Social insurance and Alfied Services, Ber-cridge, for ell his other achieve-nicots, would have been accorded the accolude of a higher place in history than many another distin-guished public servant.

Ensured public servant. The report, "the most popular bloeprint for social reform ever pro-dured in Arithin", us Dr Harris instly cutts it—and, one might add. the only one of its kind—has assured him such a place. It is strange to recall that it was almost by an accident of history then he by an accident of history than he was cumulssioned to write it, and that no one clse had any notion if producing mything so ambinions, while Beveridge himself would have preferred to continue with work of more obvious wartimo relevance. Be-hind it, however, lay nearly 40 years of thought and experience, and be-fore it, os it chanced, a fortunate moment for his appearance. Colocid noment for hs appearance. Coincid-ng as it did with the turning of the ildo of war, the renort give n lift to spirits long chustened by mis-fortuna and, to Churchill'e diagust, was widely welcomed os e glean of light at the end of the tunnel.

JIMSO oven made e profit on its sales, ond simost overnight Beveridgo himself, historio hardly Beveridgo himself, hitterto handly known to the general public, became something of a popular here, a latter-day "People's Wibliam", un-bikoly through the cole was for up authinitarian and elitist an intel-lectuel. It is true that ids tecom-mendations were by no means fully carried out, but his influence on the shaping of the "weifare state" (on expression which he strongly (en excipance of the "welfare state" (en expression which he strongly depreceded for its "Saula Cinus" connected for its "Saula Cinus" connected for its "Saula Cinus" connected for its acknowledged, and is still plain to ace, even through with new policies in the sixtles the "Beveridge revolution" was declared to have spent itself.

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Lord Reverldge, Director of the London School of Economics and Politicol Science 1919-37; from a painting by Sir William Nicholson in the possession of the school.

more writing and, finally, the chairmanship of two "new town" corporations ond a committee mu invaleasting. The record reads as that of a man almust uvid for office; indeed harris shows that despite the production of aeveral important books and much research into trado cycles and unemphoyment, "Berr-idge did nat really huve a calling for a life of scholarship. Ho was always much happter when directly invalved in practical problems": hence his excitant excloatantion on joining Churchill's staff in 1908, "New I can write blue hooks". Yet this alld not mean that he could hoth formulate group schows with a straightforward cal-evits all not mean that he could hoth formulate group schows with a straightforward cal-port sprang fully-urned mi do the straightforward cal-port sprang fully-urned mi do this straightforward cal-port sprang fully-urned mi do the straightforward cal-port sprang fully-urned mi do the straightforward cal-port sprang fully-urned mi do the straightforward cal-"Niw I can write blue hooks". Yet this alld not mean that he could hoth formulate great schemes and face the patient routine of carrying thom out, unless, as Lord Salter suggested in an obitnary, "ho could lead without challenge or compromise."

declared to have spent itself. Inevitably, dicrefore, it is first in connexion with the report that in this of him, but dicre was much else of great significance in his career. He wrote bis own account of then career at the eutobiography inolnteilly entitled Power muld first. enc., but an objectivo appraisul of the mus such is contribution bes-long been called for, and this bo-recendent is contribution bes-long been called for, and this bo-which it drawa (lociuding nearly SW boxes of his collected papers), amounts elmost croat at "Life and self-defeating perventities, a complex, in all his antwable strong is sole career, from Last End group whork, as Dr Last End group whork, as End sole and pillon ". Harris has green to strong the anton bes-long been called for, and this or the mus end the mass of meterial or sole of pressing the the mass of the there was minet in all his antwable strong the anton sole of the mass of meterial or the mus end the mass of meterial or sole of the mus end the there was minet the mass of meterial or sole of the mass of meterial or the mus end the mass of meterial or sole of the mass of meterial or the first is end more the plinon ". It was a cemarkeble career, from Hast End more at End or and the the mass of the mass o

Fuch aspect of his curver is dealt with at some length, but thu musr notable contribution lies in the discussion throughout of the basic ideas of his social philosophy. Dr Iburtis is critical of the "familiar imaga" of him as "a straightforward cul-lectivist liheral whose famous re-port sprang fully-armed nut of his oxperiences forly years befora " (though the sources sho quotes for this extravagant opinion will hardly bear this construction), and she shows, in particular, how between the wars in despair at wartime experience and the too reody occept-ance of the "dole" in the postwar depression, he floundered uncer-tainly, turing away from social poli-cies uid even for a time embracing orthodax economics. Yet his chair-mauship from 1934 of the Unem-ployment Committee carried him back, by his own account, " to my first love in social problems", and prepared him for the opportunity that wes to come in 1942, when, with the expetience of the interre-ning years in mind, he restated prin-ciples which he had furmed as early as 1907.

implicit in the 1942 report. Like many contemporaries he was suspl cions of direct democracy, not hu favoured the guidance of society by an impartial, enlightened, public-spirited elite, "the rule of experts" such as he saw himself. Within a system of this kind luburn ex-changes could smooth memphy-ment, and social lusurance sym-holize the responsibility and inde-pendence of citizens. When, later, after the observation of the treenties, he returned to these ideas big above he returned in these ideas, his view of the rule of the state was en-larged, under the influence of Keynes, to the whiler functions set out in the 1942 report and in the book that followed, Full Employ-went in a Free Soriety, though always with scope for individual freedom and activity 15 converted freedom upd activity. If ever there were times when he felt drawn to the Left, in the last resort he rethe Left, in the last resort he re-mained a Liberal collectivist, aim-ing ulways at the reconciliation of freedom and argunization as the two essentials of madern life, though, as Dr Harris reasonably reflects, "whether such a recun-riliation of goals is in fact practi-cally mossible is one of mostion? cally possible is open to question "

This is not the only qualification to be made of floweridge's thought. As early as 1909 R. C. K. Ensur-criticized him for underestimating the human factor, and diagnosing how much "in a spirit of pure reason", and luaris comments drily on fils exalted conception of admini-strators as tending "to orcresti-mate the disinterestedness of public officials." Without the third reason the human factor, and diagnosing infections. Without the 1942 report bis opinious would now the mainly of historical interest, but while the of historical interest, but while the report embadied some objectives hardly realizable in his terms in says much for his perception that he realized the importance of the apportunity for enlarging the scope of social provision. Harris is well aware of this element in the situation. "The war", she writes " The war", she writes, situation. induced in Heveridge an almusi extrasensory ronsciousness of revulationary change"; his way

" in no sense a vnico erving in the wiblerness", as a ronsiderable indy of opinion was already calling for change. Hereridge folt this, and bohlly set down in his report the challenging sentence "a revolutionary moment in the world's history is a time fur revolutions, not patching", though his, of charse, was very much "a British revolution ". Hence, hore-ever, the accident the socialist Worker of the socialist Kores of the socialist Worker of vities of the socialist Worker of worker of the socialist Worker of vities of the socialist Worker of the socialist Worker of the socialist Worker of the socialist worker of vities of the socialist Worker hady of opinion was already calling lis, of course, was very much "a British revolution". Hence, how-ever, the occiation that the report received.

Revendese tauched public life at Ilevendage tanched public life at many oure pulats that can by noticed here, has one further quota-tion is irresistible. When engaged r nu Full Employment he recognized the risk of inflation through wage demands, and Joan Rohinson wrote encouragingly, in terms which have may too fundilar a ring nuw, "Everything depends on the moral otmosphere. If the warkers feel that genuine progress towards social justice is being made it will not be hard to solve the problem.". The 1942 report now stude in

Legends of the Thirdes: and the Loft in the 1930s Cumbrhige University Press

Folie à deur

by Ben Pimloll

ISUN 0 521 21448 3

leaders showed a disstrousing tivity to the realities of plu power and influence". To support this argument? In support this arguments for a series of case the life discusses the reactes to 1931 collapse, in which satisfy principles ulayed a much per part than Keynesian re-throughts. He chronicles this have relationships of the fer-Front comparison, the tracest of the Suchilist League (122 mul the outbreaks of violent stance, evoke a strong sense of

statice, evoke a strong sense et an on. Someone, some day, mustant write that overdue book mit shurves haw certain habits of mit onal styles of organization pres from ono left-wing movement is the next, irrespective of his nomal of external ciccumstances. In Marchaster University Press, £4.95 of external ciccumstances. It is of 7190 06775 end 00 063 337 1

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Seeing Through Everything : English Writers 1918-1940 of William H. Pritchard Feber & Faber, 55,95 ISBN 0-571 10167-4 room recently. If so, he is oddly suades us to read it as "simplified nowilling to face the upposition in caricature, a thank entertainment open argument, and instead displayed by a clever shownan typen argument, and instead expends much energy on shadow-baxing with ghostly sociological critics, only one of whom thery fugleront ever energes, briefly, into the light. This leads to o cet-tain lack of clarity, and matters are only unde worse by the tone of hinstering bonhomic which Prin-chard adopts to disguise his ner-vousness. His hook is heavily salted with homespun colloquialisms in The ultrics, "the Red Data Long, long ago, in the forties and are the Homeric age of the best files, American literary academics mustivar years only Alder of the best files, American literary and angoinly vousness. His hook is heavily salled with hontespin colloquialisms in order not to appear domirkl. This peculiar style is apparently the product of what Princhard calls "the personal approach", oud of his determination "to dislaim the "uentral tone"... in favor of sub-jectivity", and that approach de-rives in turn from the book's main argument. For this essay, despite its modest claim to be "a book without a thesis or overarching idea", does have n recurrent theme, and it is that most critics of twen-"scoredy a novelist" at all and that most of his later poens are equally disastrons, "shrill only embarrassing ontbreaks of meon-trolled feeling".

Now the really irritating thing about this book is that there is

tious.

The thirtles, "the Red bay Long long ago, in the forties and are the Homeric age of the let fittee, American linerary academies furstivar years only Alderman, were cathralled by an ungoinly renched equal rank in try been called the New Criticism. This has been all body were and international in the line and the let body. It is distinguishing feature was a creed invented to combat the way of the line and the let body. It is distinguishing feature was a Yet it was in fact o decade do. It is distinguishing feature was a Yet it was in fact o decade do. It is distinguishing feature was a Yet it was in fact o decade do. It is distinguishing feature was a Yet it was in fact o decade do. It is distinguishing feature was a Yet it was in fact o decade do. It is distinguishing feature was a Yet it was in fact o decade do. It is distinguishing feature was a Yet it was in fact o decade do. It is distinguishing feature was a Yet it was in fact o decade do. It is distinguishing feature was a Yet it was in fact o decade do. It is distinguishing feature was a Yet it was in fact o decade do. It is distinguishing feature was a Yet it was in fact o decade do. It is distinguishing feature was a Yet it was in fact o decade do. It is distinguishing feature was a Yet it was in fact o decade do. It is dont no o kind of whistorical results which produce them, if and the northor is determined it. The autor was a deven from their anthor's per-headway despite the pressional lives. Otherwise, according to the pressional lives. Otherwise, according to the pressional were form the author is determined. The autor was a deven from their anthropology is and "political it is a dont and the result and the autor is determined to the bay and the pression the author is determined to the bay and the pression the pression of the set of the is the pression of the set of the is the pression of the set of the the pression of the set of the is the pression of the set of the is the pression of the set of the the pression of the set of the the pressing of th

about this book is that there is nuch to be said for this view— there is scarcely a single impor-tant text of the period which is of interest primarily os social documentation—and it might have formed the basis for a major re-valuntion of these writers. For behind the nervous clowning, and the exeggerated fear of sullying his pages with "bockground", Prit-chard's criticol judgments are often sound and his enthusiasm infec-tious. the author is determined never to emplain the books by generalizations about The Age: "I am myself sur-prised how little good it does, when trying to pay attention to a poem by Auden or a novel by Waugh, to fortify oneself with trnths about the condition of Englond at that time, the 'social hockground' we sometimes pretend lies behind works of art." What he colls, with secondic capitalization, The Real World, is accordingly banished from this book, along with all the "beckgrounds", social null odher-wise, which modern writers have pretended "to be interested in. It is not clear why Pritchood

backgrounds", social and oder-backgrounds", social and oder-pretended " to be interested in. It is not clear why Pritcheed should feel so combative (or " ner-tously defensive " as he cundidly describes hinself) about all this, Perhaps ha has been badly vanied by heckling from the "literature and society" lobby in the lecture

THE TIMES HIGHER EDUCATION SUPPLEMENT | 1.11.77



# Anti-social criticism

This is admirable. Ilut a set of sharp opercus does not make a criti-col study, and Pritchard, in his argument. For this essay, despite its modest claim to be "a book without a thesis or overarching idea", does have a recurrent theme, and it is that most critics of twen-ties and thirlies literature, whether lefties or Leavisites, have treated it with excessive reverence. We should read this literature not as "sulem judgments on madern civilization" but as "exhilarating performances" (Pritchard's two favourite words), "theatrical and caricatural": we should delight in the "grandeur uf its magical gesturings". auxiety to parade his "subjecti microin and culturing incrary monu-menta", are sturilling. There is no discussion of Yeats, nor of Found, nor of Joyce, and the euthor ex-plains that whis is hecause "these three writers were simply not in England during these years; the realm of myth and heroic literature was their true place of residence ... they climbed to the top of their respective towers and, in the their respective towers and, in the their respective towers and, in the Yeatsion phrase, preoccupied them-selves with 'mere images'". This would sound lance enswhere, but coming from a critic who asserts that "social background" is imagin-ary and irrelevant, it is plainly in-consistent. Hugh MacDiarndd, David Jonea and Dylan Thomas have been dropped on what Pritchard timself calls the "cruder" grounds of his "disinclination to brenk out of or say forewell to London". No doubt this is meant to be an engaging ex-omplo of the "personol epproach" Here we have the lapsed Leavisite faa he confesses hinself; diagnos-ing Scruting's gross failure of judg-ment in the face of mudern English omplo of the "netsonol eppronch" In action. It comes over os simply

lain Wright

# Window on the house of fiction

of the concern. Those names indicato how widely the novelists themselves heve participated in the critical debote both in this country, end, es the essays by Roth, Borth and Bellow remind us, in America too. meditations on the craft of fiction are not what engage us, but rather the way in which the prefaces, taken ss a whole, build up a poetics of the novel, and provide on idiom foc critical discussion, releasing protoborg still potent in our think

nuother instance of the orbitrary quirkiness which mars the whole

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# BOOKS Why labour is not in demand

problems of unconfloyment and in-flation. In developing this thesis Malinvaud rolies heavily upon the recent work of Barro and Grossman and the earliec writings af Clower and Pstinkin. These entitors find orthodox Korneciping to be define orthodox Keynesianism to be defee-

The Theory of Unemployment Re-considered by Edmond Mstinvend lilockwell, 65.00 In this work Professor Mullivand publishes the three lectures which he gave eaclier this year in fiel-sivki as part of tha Yrjo Jahnsson The central chesis of the lectures The central thesis of the lectures is that general equilibrium theory constitutes the indispensable foundu-tian for the study of tha real world in oblems of uncinderweit over the study of the real world in the study of the stu

will only reduce aggregate demand, thereby increasing memployment. In commun with Burro and Gross-mon, Medinyund claims that the weakness of both classical and Keynesian theories is their purtial equilibrium approach whereby both schools fail to ocknowledge the con-strainte immosed on purgeoreture in orthodox Keynesianism to be defee-tivo in pwo important respects. First much of Keynesian theorizing, such as the theory of the multiplier eod the consumption function, is ad hoc and lacks any oucroscour-inc, choice-thearetic frundation. Second, Keynes's break with classi-cal theory is incomplete in that while denying Says Law und facus-ing arrendion opon the formation of effective demund in the goods market, Keynes nevertheless necepts the classical orthodoxy that the

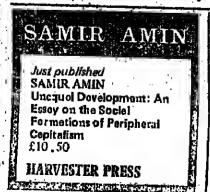
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Here are five lectures full of the oredical ideas from. Coffey and e. thorough history of Europasn mono-tary union from Tsoukalis. In their different ways, both show what tha debate was all about. "Wos"? The powers that were agreed in 1969 that there should be European monetary union by 1980. If one monetary union by 1980. If one thing is certain in 1977, it is that there will be no such union so soon. At least, not if it means total and irreversible convertibility of mem-her currencies, with irrevecably fixed exchange cates and zero mar-ging of fluctuation hormone door gins of fluctuation hetween them. So why revive the debate?

So why revive the debate? Ducing the depression, the Com-munity's chief task was to survive, It dispased of none of the fiscol end monetary weapons which were thought mast relevant to moet the slump. If governments thought international perfeys important, they wanted them with countries with fibrancial muscle. European cooper-ation bacame e side issue. Yet the Community survived. Once the depression lifts and the growth of trade cones to the fore again, Euro-pean inregration will resume its role.

In the meanine, the customs unlou between the Nine was com pleted in mid-1977. The Community is thus once more faced with probis thus once more faced with prob-lems of deepening and widewing, as in the late 1960s when the customs unlen of the Six was completed. If the Community is to bacome e more than a customs house with c an ellotment, fiscel harmonization end monetary integretion will heve i in ba on the agenda. This time i there will be the chastening experi-ence of the first ettempt at moneenca of the first ettempt at mone tary union to drew on, es desribed by Tsoukalia. There will also be et least an embryonic institution in the form of tha European Monetary



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Cuaperation Fund. Although this fund has not been allowed to do much, it does at uny rate provida a forum for experi discussions. What emerges from both backs is that monotacy unlow was originally and £4.95

What emerges from both backs is that nonteacy union was originally conceived us an act of palitical showmonship. It was to stort from the top and ba a federal reserve system rather than apply the les-aons learnt from Euro-currency experience. EMU was to be posi-e, the integratian like common ogri-cultural policy. The Community r was to be seen in action. This was a preferrent to the negative integro than of the custams union which prevents Europeans through custams union was generally uning allore Europeans through custams union was generally uninged o success, while the positive integration of the CAP has remained controversini.

would not enter into any bluding commitment beyond on agreancht ta consult anch other ond partiv be-causu oven limited "posilivo" echemes are fiabla to become irre-iavant when circumstances change. Although this is not specifically stated in either book, perusal of beth book togethec suggests that monetary uoion is more likely to become eccaptable if it follows the cuetoms union's way of the removal of restraints. Moreover, politicians' predilections for package deals is liable to obfuscala each issue, and it may be batter to concentrate oo one issue et a time.

hurting nitter Buropeans throtign customs union was generally udjudged o success, while tho positive integration of the CAP has remained controvershal. y In the manetary sphore, that a attempt to move tawards u positive incession of states. Under the 1970s, juntity because governments would not enter into any blading a, commitment beyond on agreament of the consult anel, of the remainded the more and the consult and the of the the provide the succession of udjustmants to per-ceived disequilibrium, on a winders how much consistency in people's planned actians would be necessary or indeed possible.

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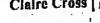
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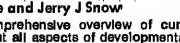
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scrution raine, The review was hunched in 1965 by the then Nature Conservancy, with the oim of compiling a countrywide list of sites whose safe-gnording is "of priority and mgency". At that time there were about a hundred National Nature Reserves. The reappraisal has shown the wisdom of the con-scrution surategy proponeded in 1947 and also of the early aclection of "key ureas" to represent the major types of vegetation. Inn as a result of the review

1947 and also of the early acticution of "key meas" to represent the major types of vegetotion. Inve been recognized and filled ; os NNRs and some 3,500 sites of special scientific interest have been notified. Of these SSis, 735 are placed in the top two closses oo o four-point grading system and me of at least notional importance. These sites form the basis of the present review, the more immerous lower grade sites being excluded. Publishel on beholf of the Nature Conservancy Council and the Natural Environment Research Commit, the Reviow represents the columnation of an enormous effort to which many have contributed, mov Chief Scientist of the Not Nature constinution of an enormous effort to which many have contributed, mov Chief Scientist of the Note Large parts of the text. Althoogh numerms enthors are twolved, this does not obtruile, and o systeomatic and this been adopted for the major habitat grouplogs. The bilk of volucio I is a com-preheosive account of soven tonin its and who blotself wrote large parts of the text. Althoogh numerms enthors are twolved, this does not obtruile, and o systeomatic and this been adopted for the major habitat grouplogs. The bilk of volucio I is a com-preheosive account of soven tonin is considered account of soven tonin is been adopted for the major habitat grouplogs. For each "formations" is first considered with omphasis on vegetation scrubt; open waters ; peaklands; lowland grasslonils, leaths on scrubt; open waters is peaklands; lowland grasslonils ood noths; and ortificial ecosysteors. For each "formation" is first considered with omphasis on vegetation serves os on integrated oxpression of onviroomental influ-ences and is a indior dotorminon of the onimal coorponent. Theso synopile accounts are of interes not only to bloogists—mony impartant ecological especies are included end these sections provide virtoelly texbonk coverage—but elso to

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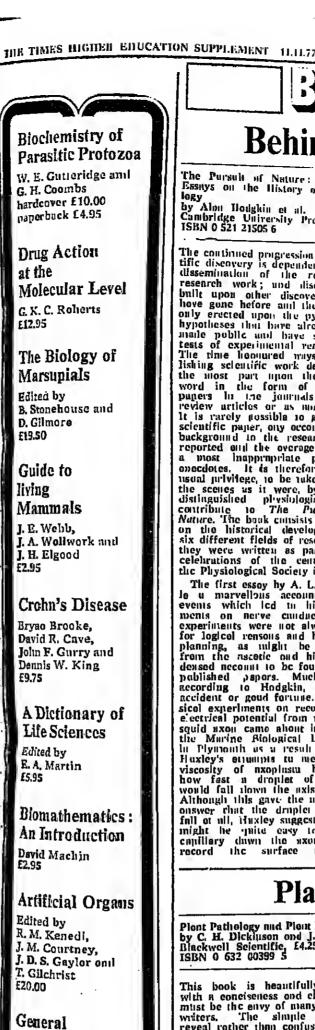
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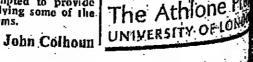
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Mechanics and Energetics of Merhanics and Energencs of Animal Lacomotion edited by II. Mc. N. Alexander and G. Goblspink Chapman & Hall, f15.00 ISBN 412-12690-9

There has been a renaissance of the study of animal structure and function, much of a concerned with the way in which nunscles work, The way in which nunscles work, produce power and cooperate in loconution. Recent work has trans-formed an uncedotal subject into o descriptive science somally based on physical and mechanical prin-ciples. These advances have been tarinosly reviewed but there is a need for them to be bringht bigenier. This book, which con-siders the physical and chemical basis of movement, fins to provide basis of movement, nints to provide this general account of locomotion. tion whit is vial the along the competi-should he as effective as possible. Through the animals may be very different and use very diverse mechanisms, all use contractile sys-tems in power skeletal structures. The book, logically therefore, starts with a consideration of the types of muscle, how these generation furce, diorten and produce power and how the properties of the muscles are inflored to the meeda of the onimal. Particularly in pres-sive is the clarity of the description with the size of muscles of the muscles of higher insects mut how they generate power on the muscle filaments. However, not omongh emphasis is given to the myogenic muscles of higher insects mut how they generate power on the retering of generate power on the contral preference filaments. How were on the myogenic muscles of higher insects mut how they generate power on the retering of generate power on the contral printe muscles of higher insects mut how they generate power on the retering pristifiable. The that enter the reterence for primer insects will a contracting the reference filantents that the starts is different to the myogenic muscles of higher insects mut how they generate power on the contral printed there is an element of the reterence for primer insects will be contracting the reference filantents and how they generate power on the myogenic muscles of higher insects mut how they generate power on the contral printed there is a mice less gensily excessed; there were and how they generate power on the reterence printe muscles on the conditionation the redency for reference to be mough the reddency for reference to be mough the redency for referen Animals are always in competi-tion so it is vital thin locuatotion should be as effective as possible. Though the animals may be very different and use very diverse mechanisms, all use contractile sys-tems in power skeletal structures. The buck, logically choose

instifiable. The chapters on the conditation of luconocium, though useful, arc marred by problems of baloace and scone, that up the invertebrates dismisses the considerable body of information on coordination lit. coeleaterates in a page and a half and ignores some very elegant and highly relevant work on the way in which insoer singing is controlled. The chapter on vertebrate coordi-nation falls to draw the obvious parallels between the elicitation of walking in decrebrate mammals und in headloss insects.

սուլ իս hemiloss insecta.

The chapters on walking, ewim-ming and flight are all interesting

BOOKS

but somewhat hurd work. Through-out, there is the very landable object of describing the processes from a sound wrathematical basis and this is done in such a way that the conclusions uppear periodically us a series of steps in the argu-ment. Arthropool walking is treated very briefly—even though I was delighted to note that the glust trab moves at 4 mph by truning. The clich mechanism in the wing articulation of flies and the way in which wing beats are em-trulied are given too little atten-tion.

wing articulation of flies and the way in which wing beats are can-tralled are given too little atten-tion. Relatively eosy, by contrast, is the advantages of various nrangements. Relatively eosy, by contrast, is the advantages of various nrangements of the budy wall pursculature and af the compariments of the budy in worms and clams are described, the tank like movement of sualts is clearly explained. The buok ends with a chapter on incomotion by cellular organelles. There is a nice account that draws the mechanical parallels between

limited to forms with non-rigid
pseudopoina.
The brok as a whole must he indged partly by its funits. There are errors and omissions in the certer issue of the chapters, and there is a tender can pursue the muter is a tender can pursue the subre through the review. Various other funits are less ensity excused : there is a sud lack of cruss-reference is a sud lack of cruss-reference herewith the result of cruss-reference is a sud lack of cruss-reference is a sud lack of cruss-reference is a sud lack of cruss-reference herewith the result of the result that important studies on rolated systoms, illustrating important placed here, for the subject matter is too skeleton, which is surprising as it is against this that the muscles work. Against these critifisms I must if the hook, it is through comprehensive and readable.

In the number of the statement of the Are extremely sophisticeted and inevitably contined to the labor-sized here that it should be elearly borne in mind that ploot diseaso is the result of complex juteractions between host, pathogen, microffora and the physical end chemicai onvisonment, and the study of any one of the factor. In isoletion is unlikely to centribute greatly ito of accurring effective disease con-trol in erope. Professor Deverall hes now pro-duced an excellent survey of the attack by pothogene. The chould engaged to research in plant patho-logy and to twachers of this dis-cipline as, well as to other well as to other attack by pothogene. The chould engaged io research in plant patho-context of the study of the study of the study of the engaged io research is plant patho-togy and to twachers of this dis-cipline as, well as to other to the twachers of this dis-cipline as, well as to other the study of the engaged to research in plant patho-cipline as, well as to other to the twachers of this dis-cipline as, well as to other the study of inevitably confined to the labor-atory. It may perhops be ompha-sized here that it should be clearly borne in mind that ploot diseaso is-the result of complex juteractions between host, pathogen, microflora and the physical and chemical onvironment, and the study of any

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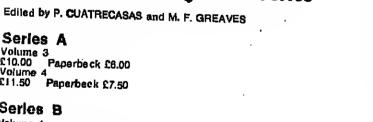
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The Pursult of Nature : Informal Essitys on the History of Physic-logy by Alay Todakin et al.

they were written as part of the celebrations of the centenary of the Physiological Society in 1976.

The first essoy hy A. L. Hodgkhu le u marvellous account of the events which lcd to his experi-ments on nerve conduction. His

ments on nerve conduction. His experiments were not always done for logical rensons and hy careful planning, as might be expected from the ascetic and highly con-densed necount to be found in the pablished papers. Much of it, according to Hodgkin, arose by accident or good fortune. The clus-cided empedances on warming the

logy by Alan Hodgkin et al. Cambridge University Press, £7.55 ISBN 0 521 21505 6 The continued progression of scien-tific discovery is dependent on the dissemination of the results of this developing an interference mic-trocope with which to observe liv-ing single nausch fibres. When these fibres contracted, he found that the changes in length take place chiefly in the 1 banks. Workers in the 1870s had estab-lished this har in was contralicted by others and finally forgotted. The dime hoomered mays of pub-ting single causch fibres. When these fibres contracted, he found that the changes in length take place chiefly in the 1 banks. Workers in the 1870s had estab-lished this har in was contralicted by others and finally forgotted. It is rarely possible to give, in a scientific paner, ony occount of the buckers and the is and har to serve unit is mary be tecepted with such embrission that the is rarely possible to give, in a scientific paner, ony occount of the buckers and the is many be tecepted with such embrission that the start is fartly common, the also believes that in may be tecepted with such embrission that the is rarely possible to give, in a scientific paner, ony occount of the buckers and finally forgotted the thereafter are perhaps wrongly infloenced by

It is rarely possible to give, in a scientific paper, ony occount of the buckground to the research being reported out the overage paper is a most inappropriate place for much buckdtes. It is therefore much beind the scenes as it were, by the site of the scenes as it were, by the site of the playsing site of the playsing site of the playsing on the historical development of the six different fields of research and they were written as part of the

warrant such a conclosion. Dther articles are by W. Feldberg on the work on chemical transmis-sion of the impolse across the junc-tion between serve and unsele with which he was associated from with which he was associated from the beginning. Again, there are many interesting anecdures about the life and work of the scientists involved in making great odvances. W. A. II. Rushton writes about the past 50 years of research on vision, R. A. Gregory contributes a context of the work in which here

review of the way in which hor-mones were first discovered in the pablished papers. Much of it, according to Hodgkin, orose by accident or goud fortuge. The clus-sical experiments on recording the e certrical potential from which the squid axon came about in 1939 of the Marine Riological Lubratory in Plymouth as a result of A. F. Haxley's enumpts to measure the viscosity of axopinsu by accing how fast a droplet of mercury would fall flown the axis cylinder. Although this gave the unexpected onswer that the draplet does not fall et all, Haxley suggested lipt it might he paine casy to stick o emillary down the axon and to record the surface membrana

### **Plant pathology**

Plont Pathology nud Plont Pathogena by C. H. Dickinson ond J. A. Lucos Blackwell Scientific, £4.25 ISBN 0 632 00399 5

This book is heautifully written with a conciseness and clurity that must be the envy of many textbook writers. The simple diagrams reveal rother than confuse and the electron microscope pletures are of a very high quality. I liked the Inyoa: of the book dealing as it does first with the characteristics of the disensed plant and the microbiol nathogons hefore going on to look at the host-pathagan Interaction at population, whole plant, cellular and molecular levels. Howaver, If it is to form a true introduction to plant pathology then this book will need to be accompanied by a more truditional text which will deal to mare detail with individual diseases, their cousative organisms and control measures. Togather, thay could form on excluting introduction to form on excluing introduction to . plott pathology.

The hest section of the hook: is that denling with linst pathogen interoction at the molecular leval. This is possibly one of the most difficult areas in which to wark. In 1886 De Bary eaid: "We heve little exact knowledge of the chemico-physiological processes in tha life of the parositic fungi because the symbiotic relation puts great complications and difficulties in the way of their precise investi-gation." Much of what De Bary said then still holds good today but he would be surprised ond delighted at some of the vory fundamental work that has been dooe; particularly in the last joint wears, end he would enjoy reading obout the role of high molecular The hest section of the hook is

weight compounds such as nocleic acids, proteins, enzymes and low molecular weight compounds such as toxins, ubytoniexins and growth regulators in the host pathogen interaction. It is in theso areas that so many axcling developments are taking place and it is also here that some of the discoveries will have wider implications that in plant pathology. Discoso, whether of plant, mimal ar turn hos many meeting places at the molecular level. The incorporation of the pathogen's nucleic seld into the genome of the host is obviously one of these, with the concuminant awitching oil and off of genes which flos et the very heart of difformilication. The finding that resistance-might be correlated with chaoges in the protein metabolism and enzyme activity of the linest is o very active and rewarding mea of research.

But the autimrs are being less than fair in saying that the relation-ship of the chanical industry with research pathologists is not entirely Transaction of the British. ship of the chemical massive with research pathologists is not entirely sotiafocrory as the avoilability of information concerning the activity, formulation mud environmental alda-effacts of their producta is generolly restricted. Certolnly I have never found this to ba co in this and related fields. On the other, hand the outhors have been more than kind to Rachel Carson when they stets that "in her book Slient Spring Ishel marsholled o convincing case against the use of this conthound [DDT] on environ-mental grounds". Dically why do they state that "economic considero-tions are obviously of overriding importance [in plant bothology]" (page 5) and them make no further reference to them ? But it is cill a good book.

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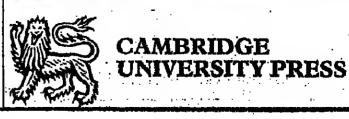
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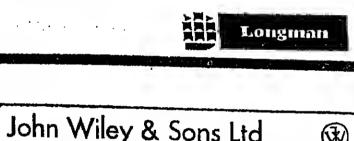
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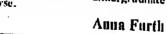
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Applications are invited for the post of ASBISTANT LIBRASIAN (Calatoguing) Grada 1 or 2, initially assigned to OOROKA TEACHERS' COLLEGE.

Applicanis unusi huid lite Registration Certificate of the Library Association of Austratic or s similar internationality recognized library quillication, To quality for Grade 0, appli-cents must in addition hold e linsi degree. Previous cata-loguing experience osenital.

For luriher details write in the Librarion at the University.

Celeries; Acelation: Libration Orade I K7,113-K6,127 p.a. Assistent Libration Grado 2 K4,663-K9,663 p.a. [£1 elering=K1.37], in addition, en allowence ol K1,338 per ennum it alsaje la peyebla. An oxira K1,000 Marriage Allowence and K136 per child Child Allow-once may also be payable.

Applicellone should include a doullod curriculum vites, a ra-cent small pholograph and the samos and addresses of three housing, asnual leave large, rolarges.

Conditions include provision o fludy leave and FSSIJ super-mnuation.

Conditions of appointmont are evaluable from the Geotelery, Gox 4820, University P.O., with whom applications close on 2 Georeber, 1877. Applicants resi-dent in UK shoutd also asso cas oppy et application to istor-Uni-versity Couscil, 90/91 Totionham Çouri Road, London, WIP 00T.

DALHOUSIE

UNIVERSITY

HALIFAX.

NOVA SCOTIA.

CANADA

SCHOOL OF

BUSINESS.

### OF NORTH QUEENSLAND **GRADUATE DIPLOMA OF MATERIAL CULTURE**

JAMES COOK UNIVERSITY

VI FIAILEIIAL COLIGEL Applications ero invited for en-rotinont for the Orodusts Olpforms of Meterial Culture. The Oradusie Olpformo is a onle year progremme that combines both theoretical and practical work and is designad to pio-vide a cound ecademic propers-tion for gredusie plonning cura-total careore in cultural musaums, it will be of particu-ler faiteset to yoang careators already in musaum posts. Special arrangemente may be possible for the diploma re-quiremanto te be completed in part at field own museums. The Graduals Olpforms will elso provide a sound prepara-tion for material culture re-cearch work and will ceek to encourage frash approaches in this negleolad fraid. It will therefore be of interost loo, to incose intending to work lor. Eairy requirements: 0.A, a 6.A. (Heas.), or equivalen qualifications.

Applications are invited both from within Australia and over-sees. Gince the cleas will be strictly limited in size early

For further information os the Graduete Optiome in Matorial Culture, write to lite Registrar, Jemes Cook University of Noth Queunsland, Peel Ollico, James Cook University, Q 4811, Australia.

UNIVERSITY OF WESTERN

ITALIAN

pplications are invited ppointment as ;---

LECTURER In the Opplitment of listian from 1 January, 1078, or es-soon as possible increatier. No special of the opplitude of the opplitude of the been assigned to finits possion. The current selary range for a Lecturer is SA18,980 to SA10,252 p.s. Benefits include super-annuclien similar to P.6.5.0... harao to Perih for appointee and dependent lemity, removal sllow-shoe, mudy lasve and loss ser-vice leave and heusing loss echems. Further talormellon may be obtained from the Stal-ing Oillicer. Applications in duplicat stal-ing oillicer. Applications in duplicat stal-ing oillicer. Australia, Nedlanda, Western Australia, Staffing, Officer.

AUSTRALIA Perth

LECTURER

Applications are invited for a Choir in the Faculty of Law from January 1, 1970, or such date as may he strenged. Although the vecent Chail is designated "Commercial Law", applica-tions from suitably qualified per-sons with intersets in other arcses of law will be given equal con-elderation. The setary is 20,798 per ennum lundor roview) with contributory panelon 10hts undor the FSSU/USS. Applications are invited for sev-prat faculty positions in the Managemosi Science Area of an expanding Busicess Science in Computer/Systems, O.R., Production and Statistics, North American rank and salary levels plus re-location allowances, Qualifications are o Ph.D. (Grand American rank and salary levels plus re-location allowances, Qualifications are o Ph.D.), (or near complication allowances, Qualifications are o Ph.D.), (or near complication is cogute area plus a significant research record for a more schur appointment), toterosted parsons should write for further details to Prolesson M. J. C. Martia, as yoon as possible, enclosing a restant and the company interviews will be held in Britsin in Derember. Further particulars may be ob-tolited from the Personnel Olitoer, -3 he Oursen's University al Beitast: 677 TNN, Northern trelend, Closing date: Decem-ber 16. 1977. Please quote Rel. 77/THES.)

General Vacancies

### Universities continued

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Applications are invited for the following posts, for which spplications close on the deline showe. SALARIES (un-less otherwise staisd) are es follows: Prolessor sA30,788; Eanler Lachurer SA10,078 to SA22,853; Laciurer / Lecturing Penfore SA10,593 for SA18,262; Senior Taaching Feilow/Sesior Tudor SA10,593 for SA18,445. Purther details, conditions of sppoletiment for each post, mathed of application and applications form, where spplic-able, may be obtained from the Association of Commonweilh Usivemilies (Apple.), 38 Cor-don Square, London WC1H OPF.

### University of Sydney LECTURER IN ITALIAN

ITALIAN Applications invited from persons flucati in both English out furtiliary level. They should have a special laterest and quali-lications in the Literature of ile Remissiones and/or Socio-legy of Literature. Appointee may elso be required to do spant language teaching. 15 December, 1977,

University of New England Armidale New South Wales LECTURER IN

ECONOMICS ECONOMICS Applicants should have a higher degree to l'economice, or com-parable experience, and be well-versed in the male branches of neutral reconomices. Research potential is important. The appointes will be expected to participate in leaching standard lirst or second year courses, with large onrolments. Further teach-ing uay be required or third rade, fourth year honours or postgraduate larges. Research is sencoursed, with ample, oppor-runities and facilities provided. 9 December, 1977.

University of New South Wetoe

Sydney LECTURERS, SCHOOL OF

HISTORY Vacancies in the fields of South fast Asian History and Loss Asian History, 30 November, 1977, LECTURER, SCHOOL

OF HISTORY AND PHILOSOPHY OF SCIENCE

Applications are invited for philipu of lecturar fu &ocial lisiony of Science and Science Mudice. Appropriate teaching and research required to social history of science and/or techno-logy and in science studies (i.e., science and public policy or eco-licatio aspects of science and teaching and public policy or eco-lications. technology). 30 November, 1977,

University of Tesmanie LECTURER OR SENIOR LECTURER IN EDUCATION

FACULTY OF EQUCATION FACULTY OF EDUCATION The specific will be responsible for developing courses is the Foundations of Education area rilistory/Philosophy) for both undergraduate and postgraduate students. He will be expected to conduct research in topics relo-vant to his field and to super-vice research in big field under-taken by candidate for Algebra degrees. A Matter for Algebra degrees, A Matter for Algebra degrees, A Matter for a gree, are-citizing in either History of Education or Philosophy of Edu-cation (with an inferent for the oline area), would be an losseptial

qualification. Teaching experi-once and laterest in a particular school curriculum area would be advantageous but are ost essential, 16 December, 1977.

Australian National Univoreity CHAIR OF .

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COMPUTER SCIENCE

COMPUTER SCIENCE FACULTY. OF ECONOMICS A foundation Chair of Computer Science 1s to be astabilisted to the Department of Computer Science, at present in the Faculty of Economics. From 1 January. 1978, the Department will be assigned to the Faculty of Science but will continue to be associated will the Faculty of Economics. The teaching of computer science was introduced initiality to 1971 in the Department of Science Department of Computer Science

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was established in 1976 and step-ins ficing taken to fill the Usar at the first opportunity. The successful candidate will be expected to provide active leader-stop in teaching and research in a strong department which thes best expanding its bornours and graditon programme. In December, 1977, LECTURING FELLOW IN MEDIEVAL

STUDIES FACULTY OF ARTS Applicants may be qualified in now seen of the incorean Middle Ages niel will be aspected to be connected in the Larin language. Dure trilnest being equal, an nymbrann with qualifications in the history of Western Europa and diplomatic would be pre-ceited. If it hourd that the appointee will be able to take up duty as form any case before the beginning of the keedemic year in early March. STUDIES

LECTURING FELLOW IN ADMINISTRATIVE STUDIES

FAGULTY OP EONOMICS The person appointed would be responsible for teaching the ous-semission of the second of the ous-semission degree course in Orga-numitional lielatvioue and a con-semission of the second of the ous-semission of the second of the ous-and the second of the second of the degree graduate being to prepare min-denia from a varing of under-graduate beckgrounds for the de-graduate beckgrounds for the de-gree course. In addition, the spin-inve would be avpecied to asset evisions staff in conducting the weekly inter-discipting, case shully sentitor, and whild be en-couraged to participate in policy analyticat research directed pel-mariky to the areas of itealth, educoring and welfase, 9 December, 1977, FACULTY OF EODNOMICS

### Le Trobe University

CHAIR IN AGRICULTURE (ANIMAL SCIENCES)

(ANIMAL SCIENCES) Applications are invited for do Class in Agriculture (Animal Sciences) which will fall vacant due to the reliminent of the foundation, protessor, Professor R, T, Rold, on 31, Japanary, 1078. Hesides mécami and teaching the appointer will, it is housd, encou-rape work in the basic sciences refuted to animal production. Che-nets research and teaching to this area encourpasses physiology, pathedagy and multiply, micro-biology and multiply, micro-biology and multiply. At present the School of Apricul-ture has the school of Apricul-Management respectively. 17 December, 1977.

University of Quesnsland LECTURER AND SENIOR TUTOR IN

COMPUTER SCIENCE -2 POSITIONS Lecture: thigher Degree in Com-puter Schuce and teaching and research nbifts. Senior Turor: Homours Degree or postgraduate qualification, in Computer Solqualification, in Computer Sol-ence. Departmental research Interests t theory of languages and com-pulation, operating systems, praphics, doa-lose management and micropercessor applications. Pacifilities include minicomputers and arcass fo extensive contral facility.

facility. 30 Nuvember, 1977. Griffith University Briebene

### SCHOOL OF MODERN ASIAN STUDIES

The school is concerned with the study of Asia in recent times; chartenily, its teaching and re-maren sciliding focus particu-iarly da Ching, Japan, and Indongesia and the Malay World. Applications are lotted from par-sons with spropriate qualifica-lons and captrion and the fol-lowing notifications with sprolowing positions which will be nvailable from: I July, 1978, or we soon as possible thereafter:

SENIOR LECTURER LECTURER/SENIOR TEACHING FELLOW **IEACHING FELLOW** Candidists' shouth have compe-tence in one or more of the lottowing fields : political ad-eites will particular witerence to modernization and theories of modernization with Asia ; unarticable mothods in the social withous the americatar. Interest would have a perifectar in and Asia : proven assession record, and asine uduituistrative experi-cations between Australia and Asia : proven messach record, and some uduituistrative experi-cations between and the social for the source trans-

ence. 16 Junitary, 1978,

### **UNIVERSITY OF** ZAMBIA

Applications are invited for the following posts in the new School of Business Studies with(in will ancel in 5 list students in October, 1977 : III OLODOI, 1977: PROFEBSOR / SENION LEC-TURER/LECTURER IN BUSINESS ADMINISTRATION. Must lavy torchlag organolocita in Ouelnoss Financo, Industrial Rolalious. Markolling and Administration Scienco. Applohuloss will par-licipate in overall development of Dublices Conference Icipate In ovorall development of Dashase Studies in an Inter-disciplinary miching pagtatana. BENIOR LECTURER/LECTURER IN ACCOUNTING ANO FINANCE AND MANAGEMENT SCIENCES In the new Scinol of Dushines Statiles. Experiente In utenn of Usinvieural Science. Political Economy, Flavarital Accounting, Management Accounting, Mutacis end participato in overall devol-opment of Susinces Studies. All oppolniments to generace All eppointmants to asmittence Juno, 1978,

All epochimonis lo comvience Juno, 1978, Salay scales: Prolessor, K6,232-K0,016 (L.A. Soniw Los-lurar, K6,270-K6,101 p.n. Locturar H, K4,950-K5,400 p.e. Locturar H, K4,950-K5,400 p.e. Locturar III, K3,758-44,410 p.n. [C1 storling=K1.37]. The Grillish Government may supplement salaries in the range C2,222-6,4062 p.e. (starling) for marifed sponines and 230-21,644 p.a. (starling) for single appointue allowances ond holiday visit passogos. Family pessages, various ellowances; supplemuta-ien; pues children's oduceitonel allowances ond holiday visit passogos. Family pessages, various ellowances; supplemuta-tion; medical sid echomo; over-soss loavo. Ostaliod applications [2 comples] including a curriculum visa ond neming 3 referees should be sent by oir mail noi lator then 5th Occambor, 1877, lo the flaglatire, Uniwailly oil Zambla, P.O. Cox 2378, Luankn, Zambla.

Applicents in UK should soud osc copy to infor-University Council, 90-91 Tollauham Courr Read, London WIP 9DT. Further particulars may be ablefood from allitor address,

### THE UNIVERSITY OF PAPUA NEW GUINEA Applications are invited to:

TUTORSHIPS. SENIOR TUTORSHIPS AND LECTURESHIPS AT GOROKA TEACHERS COLLEGE

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LECTIORSIND IN ENGLISH LAW

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THE UNIVERSITY OF PAPUA NEW GUINEA Applications are invited for the PROFESSORSIIIP OF LAN GUADE.

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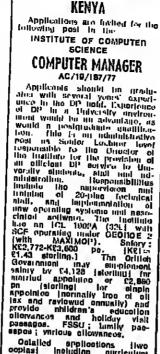
### UNIVERSITY OF NAIROBI KENYA

Applications are invited for fullowing posts in it-

OEPARTMENT OF MANAGEMENT SCIENCE

**2 SENIOR LECTURERS** AC/7/109/77

AC/7/109/77 Applicents should hold on ad-venced posigraduata dagreo in elihar Maihamailea, Bielialtea, Oporolional Research, Computer Scionce or Gusiness Adminijeira-lian with a biss lowerds qualit-tative techniques. Prelorance would ba given to sppilosnie with firmt dogrea le Susiness Admini-ofreilan, Economics or Monorge-ment Solanco. The candidato muoi heve hed several yourd enportence in losching oud re-search and shauld hovu a raccord of publications. The oppointee will be suspected to facth in ono of the following ersse in both the under-graduato (M.C.m.) and fine post-graduato (M.C.m.) and and Systems Analysis, es well as provide isadership is recorch in his licid of apecialization. Salary : K22,772-K28,000 p.a. (K21=21,43 aloring). The Brit-ish Oevermment eury aupplement salary by E4,125 p.o. (sterling) iar merried appointees (carcing) iar merried appointees (carcing) iar merried appointees (carcing) appaintees (normality free of all tax and reviewed ennually) and provide obligent and reviewers appointees (normality free of all tax and reviewed ennually) and provide obligent and reviewers euros: FSSU; family pessages; variose allowances. Ostaited oppliceltans (two copius) fagluding currialism viteo and naming theo relarges there is a construction and training), university of Narcol, Box 30187, Natrobi, Kenye. Cosing data 7 Oecember, 1977. Applicante resident in UK should also been ono cript to inter-University Counsil, Sover Viteon, Wilf 907.



Further doloifs may be ob-lained from allhar address,

UNIVERSITY OF NAIROBI

KENYA

Aphilications are invited for two posts of

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AC/8/127/79 Applicanis simuld have s Ph.O. dopued in immunology, Parosile-logy, Cansiles, Physiology, En-doornicolugy, Verinbraie Zestieury or Terresiriol Ecology. Teaching saporlance will be nandvnutnge. Appointee will be nandvnutnees and simpervise post-site and the site of the nandvnutnees in their nand of post-file-int in the number of subserve. Stiller nand the interviewe sector negative fastil: faulty pat-angee: viniour allowance. Copius d including curricelisties eline and tumility immericement of fastilities and turnelly fastioners. Biller, Nareyb, Kenyn. Closing date 7 Ducentiter.

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Applicents resident in UK sheetd died send om copy to Inter-University Countril, 90/91 Tollonbern Count Road, Loteion WIP OOT,

Further dotatin may fip ob-lolood from officer educate.

AUSTRALIAN NATIONAL

UNIVERSITY

FACULTY OF ARTS

LECTURER IN ENGLISH

Applicationo ara invited for oppointment sa Lecturer in the Department of English in the Faculty of Aris. The successfurd applicant will be required for lake up dely so cerly no poo-olbio. No apoclal listid of interest is procribed. The Op-periment of English offers a range of undergreduals courses in English Literature from medioval times to the present dey, sa well as coprate currates in Austrelise and American Literature, end aloo giftar

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SENIOR LECTION Applicants resident in UK should also eand sue copy to Intar-University Council, 90/81 Tolfaulum Court Nead, London WIP 907.

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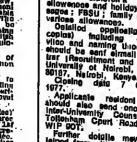
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THE TIMES HIGHER EDUCATION SUPPLEMENT

UNIVERSITY OF NAIROBI

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THE UNIVERSITY CHAIR OF GEOLOGY

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Deperiment of Mechanicel and Production Engineering

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| CTUINUE M'SENIOLE<br>LITTUHELI IN LAND<br>VALUATIONS<br>FY scales : Principal Land                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | exportence. 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                                                                                                                                                                                          | Leinham Caubri Unai),<br>familur, SV(16 3Q1)<br>Annifertions are traded for                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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| ry scales : Principal Lee-<br>E6.452 to 57.134 (bar)<br>1.0701: Sunfor Technor<br>to 56.447 (bar)<br>1. Lecturer II 63.744 (o                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | level. 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Purther perticulars and application forms which must be returned by Jan. 2, 1976, may be obtained by talephoning Whileebboy (9231) The Establishment Officer, Ulstar College, The Northern fretend Polytechnic, Shore Road, Newtownebbey, Co Antrim 8737 (CIO. School of Behavioural &

Social Science LECTURER II SOCIOLOGY

Salary : 23,279-26,493

Application forms, lo be refurned by 2nd Occember, 1877, can be oblained with further particulars from the Parsonnel Officer.

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the Hall. Applicants should hold a recognized qualification in hese-assemant of residential accom-modation and have had role-vest excertance. Although stadouts status is preforable the servenal qualities of func-and modation are essential.

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Economics and Social Studies

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LECTURER in PSYCHOLOGY

Applicants should possess a higher degree (preferably a doctorale) in Psychology and have research publications in one of the following ereas : individual differences, social psychology, human development, initian performance or cognitive psychology.

LECTURER H/SENIOR

Lecturer II-£3,744 10 £3,985

Senior Lecturer-£5,523 to £6,447 bar £6,909.

Principal Lecturer-£6.432 to £7,134 har £8.070.

Application form and further details from : The Establishment Officer, The Polytechnic, Walfrung Street, Wolverhampton WVI ILY. Tel. Wolverhaupton 27371

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Salary Scales :---

THE NORTHERN-IRELAND POLYTECHNIC

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Salary Scale : £2,689-£3,367

**RESEARCH OFFICER** 

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**Polytechnics continued** 

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Please with for full details and application form (realing first class) to: Appointments, Officer Ref. 58,421, Middo-sox Polytechnic, Hounds Grees Road: N11 2NG, to when form-steletof forms must be refuting by 21 at Novembers

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THE TIMES HIGHER EDUCATION SUPPLEMENT 11,11,77

